```
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-313353/30.
XX
PT   New isolated nucleic acid, useful for treating viral diseases
PT   associated with tumors and cell degeneration, also related
PT   polypeptides, antibodies and transfected cells  -
XX
PS   Disclosure; Page 447; 720pp; French.
XX
CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC   given in the specification, a sequence containing at least 15
CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC   sequence that hybridizes to them under highly stringent conditions, or
CC   the complement of any of them, or the corresponding RNA. The novel
CC   isolated nucleic acids of the invention are useful as probes and primers
CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC   and for production of recombinant polypeptides. Any of the nucleic acids,
CC   polypeptides, vectors containing the nucleic acids, cells containing the
CC   vector or antibodies directed against the polypeptides are useful for
CC   preparation of pharmaceuticals for prevention and/or treatment of viral
CC   diseases that are characterised by development of tumours or cell
CC   degeneration, specifically cancer but also Alzheimer's disease and
CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC   patient samples is useful for diagnosis and/or prognosis of these
CC   diseases. The polypeptides can also be used to generate antibodies, and
CC   both the polypeptide and antibodies are useful as components of protein
CC   chips. The nucleic acid sequences of the invention can be used in gene
CC   therapy. This polynucleotide sequence represents a tumour suppression
CC   related human fukutin oligonucleotide of the invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 1 G; 8 T; 0 other;

  Query Match             1.2%;  Score 14.4;  DB 1;  Length 17;
  Best Local Similarity   93.8%;  Pred. No. 2.1e+02;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1616 TAAAATATAATTTGTT 1631
                ||||||||||||||| |
Db         17 TAAAATATAATTTGAT 2


RESULT 136
AAT32141
ID   AAT32141 standard; DNA; 18 BP.
XX
AC   AAT32141;
XX
DT   16-SEP-1996  (first entry)
XX
DE   DNA sequencing "prinker" (primer/linker) complementary sense strand.
XX
KW   Sense strand; DNA sequencing; oligonucleotide; prinker;
KW   primer; linker; priming site; labelling region; cohesive end;
KW   complementary strand; ds.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1..18
FT                   /*tag=  a
FT                   /note= "forms doubled stranded segment when
FT                          bound to nucleotides 5-22 of the
FT                          sequence given in AAT12342"
XX
PN   WO9602673-A1.
XX
PD   01-FEB-1996.
XX
PF   14-JUL-1995;   95WO-US08894.
XX
PR   14-JUL-1994;   94US-0275169.
PR   25-FEB-1994;   94US-0202400.
XX
PA   (AMIC-) AMICON INC.
PA   (GRAC ) GRACE & CO-CONN W R.
XX
PI   Leonard JT;
XX
DR   WPI; 1996-105934/11.
XX
PT   New oligo:nucleotide(s) for DNA sequencing - having a priming site,
PT   a labelling region and a cohesive end complementary to a restriction
PT   fragment sequence
XX
PS   Disclosure; Page 5; 23pp; English.
XX
CC   The present sequence is an example of a complementary sense strand
CC   from a novel DNA sequencing oligonucleotide called a "prinker"
CC   (primer/linker), which comprises a priming site, labelling region,
CC   cohesive end and complementary strand. The priming site is the
CC   optimal target for annealing prior to treatment with polymerase.
CC   The labelling region is a template sequence which directs DNA
CC   polymerase to incorporate multiple labelled, e.g. radioactive
CC   nucleotides. The cohesive end provides compatible ends
CC   for ligation of prinkers to restriction fragments. The
CC   complementary strand provides a region of double stranded DNA which
CC   is required by DNA ligases for the attachment of the prinker to a
CC   restriction fragment.
CC   A prefd. sequencing procedure comprises the generation of
CC   restriction fragments from the DNA mol. to be sequenced, ligation
CC   of prinkers to the fragments, sepn. and purificn. of prinker
CC   attached restriction fragments, conc. and buffer exchange,
CC   generation and sepn. of sequencing prods., exposure of X-ray film
CC   to sequencing prods. and detection of the signal on the film.
XX
SQ   Sequence 18 BP; 14 A; 2 C; 1 G; 1 T; 0 other;

  Query Match             1.2%;  Score 14.4;  DB 1;  Length 18;
  Best Local Similarity   93.8%;  Pred. No. 2.2e+02;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        616 ACAAAAAACAACAAAT 631
                ||||||||||| ||||
Db          2 ACAAAAAACAAAAAAT 17


RESULT 137
ABZ10520/c
ID   ABZ10520 standard; DNA; 18 BP.
XX
AC   ABZ10520;
XX
DT   16-JAN-2003  (first entry)
XX
DE   Haematopoietic cell proliferation disorder related oligonucleotide #660.
XX
KW   Human; haematopoietic cell proliferation disorder; cytostatic;
KW   gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW   cytosine methylation state; probe; primer; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200277272-A2.
XX
PD   03-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-EP03401.
XX
```

```
PR   26-MAR-2001; 2001US-278333P.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI   Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI   Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T;
PI   Pelet C, Schwope I, Ziebarth H;
XX
DR   WPI; 2003-018942/01.
XX
PT   Detecting and differentiating between hematopoietic cell proliferative
PT   disorders, comprises contacting a target nucleic acid with a reagent
PT   that distinguishes between methylated and non-methylated CpG
PT   dinucleotides -
XX
PS   Claim 15; Page 48; 117pp; English.
XX
CC   The present invention describes a method for detecting and
CC   differentiating between haematopoietic cell proliferative disorders
CC   associated with at least 1 gene and/or their regulatory regions in a
CC   subject. The method comprises contacting a target nucleic acid in a
CC   biological sample obtained from the subject with at least 1 reagent,
CC   which distinguishes between methylated and non-methylated CpG
CC   dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC   represent specifically claimed nucleotide sequences from the present
CC   invention. Oligonucleotides from the present invention can be used: for
CC   differentiating between healthy haematopoietic cells and proliferative
CC   disorder haematopoietic cells; for differentiating between acute
CC   lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC   determining the cytosine methylation state and/or single nucleotide
CC   polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC   related sequences and their complements; and as primers for the
CC   amplification of haematopoietic cell proliferation disorder related
CC   DNA sequences. The nucleotide sequences from the present invention can
CC   also be used for detecting a predisposition to, differentiation between
CC   subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC   haematopoietic cell proliferative disorders. The present method enables
CC   a highly specific classification of haematopoietic cell proliferative
CC   disorders allowing for improved and informed treatment of patients.
XX
SQ   Sequence 18 BP; 4 A; 0 C; 4 G; 10 T; 0 other;

  Query Match             1.2%;  Score 14.4;  DB 1;  Length 18;
  Best Local Similarity   93.8%;  Pred. No. 2.2e+02;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        620 AAAACAACAAATAATT 635
              ||||| ||||||||||
Db         17 AAAACTACAAATAATT 2


RESULT 138
AAQ89232
ID   AAQ89232 standard; cDNA; 20 BP.
XX
AC   AAQ89232;
XX
DT   25-MAR-2003  (updated)
DT   20-OCT-1995  (first entry)
XX
DE   Rat opioid receptor PCR primer.
XX
KW   Opioid receptor; gene therapy; diagnostic; primer; PCR;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9507983-A1.
XX
PD   23-MAR-1995.
XX
PF   13-SEP-1994;   94WO-US10358.
XX
PR   13-SEP-1993;   93US-0120601.
XX
PA   (INDV ) UNIV INDIANA FOUND.
XX
PI   Yu L;
XX
DR   WPI; 1995-131351/17.
XX
PT   New nucleic acid encoding new human mu opioid receptor - and
PT   related vectors, transformed cells, antibodies etc., useful in
PT   diagnosis, treatment and drug screening.
XX
PS   Example 9; Page 154; 266pp; English.
XX
CC   PCR using the degenerate primers given in AAQ89231-32 was used to
CC   demonstrate that the relative mRNA abundance of mu, delta and
CC   kappa opioid receptors, and of a new opioid family member
CC   (AAQ89233) in rat brain, was 68, 14, 10 and 8%, respectively.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 20 BP; 5 A; 2 C; 4 G; 7 T; 2 other;

  Query Match             1.2%;  Score 14.4;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 2.4e+02;
  Matches   15;  Conservative    2;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1121 GTTATAAAGATGTTATAGTA 1140
              | |:|:|| ||||| |||||
Db          1 GCTRTRAACATGTTGTAGTA 20


RESULT 139
AAH56684
ID   AAH56684 standard; DNA; 20 BP.
XX
AC   AAH56684;
XX
DT   06-SEP-2001  (first entry)
XX
DE   Streptococcus pyogenes groEL antisense oligonucleotide SEQ ID NO:332.
XX
KW   Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW   microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW   Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW   antibacterial; antiviral; antiproliferative; antisense therapy;
KW   microbial infection; ss.
XX
OS   Streptococcus pyogenes.
XX
PN   WO200136625-A2.
XX
PD   25-MAY-2001.
XX
PF   20-NOV-2000; 2000WO-CA01347.
XX
PR   18-NOV-1999;   99US-0166249.
XX
PA   (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI   Wright JA, Young AH, Dugourd D;
XX
DR   WPI; 2001-355633/37.
XX
PT   Novel antisense compounds targeting nucleic acid encoding groEL or
PT   groES gene of microorganism, which hybridize with and inhibit
PT   expression of the genes, useful to inhibit growth of microorganism
PT   having the genes -
XX
PS   Claim 3; Page 50; 110pp; English.
XX
CC   The present invention specifically claims AAH56368 to AAH56832 which are
CC   antisense oligonucleotides to nucleotide sequences encoding groE. More
```

CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or
CC GS of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral
CC and antiproliferative activities, and can be used in antisense therapy
CC and for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or
CC a virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL
CC or GS gene and administering (I) such that the growth of microorganism
CC is inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention.
XX
SQ Sequence 20 BP; 15 A; 4 C; 1 G; 0 U; 0 other;

Query Match 1.2%; Score 14.4; DB 1; Length 20;
Best Local Similarity 93.8%; Pred. No. 2.4e+02;
Matches 15; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 618 AAAAAACAACAAATAA 633
||||||||||||| ||
Db 4 AAAAAACAACAAAGAA 19

RESULT 140
AAF83325
ID AAF83325 standard; DNA; 20 BP.
XX
AC AAF83325;
XX
DT 09-JUL-2001 (first entry)
XX
DE Human SAPL cDNA specific primer 4dest4 6f.
XX
KW SAPL; SIT4; SIT4 associated proteins like; human; antidiabetic;
KW sporulation-induced transcript 4; SAPLa; SAPLb; gene therapy; IDDM;
KW insulin-dependent diabetes mellitus; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200129213-A1.
XX
PD 26-APR-2001.
XX
PF 19-OCT-2000; 2000WO-GB04027.
XX
PR 19-OCT-1999; 99US-0160400.
XX
PA (WELL) WELLCOME TRUST LTD.
PA (MERI) MERCK & CO INC.
XX
PI Todd JA, Twells RCJ, Hess JW, Hey P, Hey P, Caskey CT, Hammond H;
PI Metzker ML;
XX
DR WPI; 2001-300338/31.
XX
PT Isoforms of novel gene arising from alternative splicing and encoding
PT highly related proteins termed as SAPLa and SAPLb, from the IDDM4 locus
PT on human chromosome 11q13, useful for treating IDDM and other diseases
PT -
XX
PS Claim 14; Page 98; 129pp; English.
XX
CC The invention relates to SAPL [SIT4-(sporulation-induced transcript4)
CC associated proteins-like] polypeptide, selected from SAPLa polypeptide
CC isoforms and SAPLb polypeptide isoforms. The SAPL polynucleotides are
CC useful in gene therapy for treating and preventing insulin-dependent
CC diabetes mellitus (IDDM). Fragments of the SAPL DNA are useful as primers
CC and probes. The SAPL polypeptides are useful in screening for a substance
CC e.g., a peptide or chemical compound, which interacts and/or binds with
CC them. Sequences AAF83318-350 represent PCR primers specific for the SAPL
CC cDNA.
XX
SQ Sequence 20 BP; 6 A; 3 C; 7 G; 4 T; 0 other;

Query Match 1.2%; Score 14.4; DB 1; Length 20;
Best Local Similarity 93.8%; Pred. No. 2.4e+02;
Matches 15; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1097 AGAAGATGAATCATTG 1112
||||||||||||| |||
Db 4 AGAAGATGAATCCTTG 19

RESULT 141
AAA62676
ID AAA62676 standard; DNA; 19 BP.
XX
AC AAA62676;
XX
DT 08-JAN-2001 (first entry)
XX
DE Cry2A family gene shuffling PCR primer 1 for.
XX
KW Cry2Aa; Cry2Ab; Cry2Ac; family gene shuffling; recombinant;
KW nucleic acid diversity; mutagen synthesis; PCR primer; ss.
XX
OS Unidentified.
XX
PN WO200042561-A2.
XX
PD 20-JUL-2000.
XX
PF 18-JAN-2000; 2000WO-US01203.
XX
PR 19-JAN-1999; 99US-0116447.
PR 05-FEB-1999; 99US-0118813.
PR 05-FEB-1999; 99US-0118854.
PR 24-JUN-1999; 99US-0141049.
PR 28-SEP-1999; 99US-0408392.
PR 28-SEP-1999; 99US-0408393.
PR 12-OCT-1999; 99US-0416375.
PR 12-OCT-1999; 99US-0416837.
XX
PA (MAXY-) MAXYGEN INC.
XX
PI Crameri A, Stemmer WPC, Minshull J, Bass SH, Welch M, Ness JE;
PI Gustafsson C, Patten PA;
XX
DR WPI; 2000-482862/42.
XX
PT Recombining homologous nucleic acids to produce family shuffle nucleic
PT acids comprises hybridizing and elongating a set of family gene
PT shuffling oligonucleotides and providing a population of recombined
PT nucleic acids -
XX
PS Example; Page 54; 74pp; English.
XX
CC The present sequence is a PCR primer used in a method for shuffling genes
CC cry2Aa, cry2Ab and cry2Ac. Gene shuffling is a process for
CC generating recombinant nucleic acids. Oligonucleotide assisted
CC approaches can be used to produce family shuffled nucleic acids without
CC isolating or cloning full-length homologous nucleic acids. Family gene
CC shuffling oligonucleotides are provided by aligning homologous nucleic

```
CC   acid sequences to select conserved regions of sequence identity and
CC   regions of sequence diversity. A plurality of oligonucleotides are
CC   synthesised which correspond to at least one region of sequence
CC   diversity. In this example, the oligonucleotides were spiked into
CC   the assembling mix and PCR was then performed using the present primer.
CC   The method can be used to produce a family of shuffled nucleic acids, to
CC   produce recombinant molecules with greater molecular diversity and to
CC   generate classical mutagens. Homologous nucleic acids with low sequence
CC   similarity and non-homologous nucleic acids are also easily recombined.
XX
SQ   Sequence 19 BP; 9 A; 0 C; 3 G; 7 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 2.5e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1102 ATGAATCATTGATTGAATA 1120
              |||||| ||  ||||||||
Db          1 ATGAATAATGTATTGAATA 19


RESULT 142
AAA83135
ID   AAA83135 standard; DNA; 19 BP.
XX
AC   AAA83135;
XX
DT   04-DEC-2000  (first entry)
XX
DE   cdk7 ribozyme binding site #56.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic;
KW   restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US28772.
XX
PR   04-DEC-1998;   98US-0110954.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1  -
XX
PS   Disclosure; Page 57; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells.
CC   The ribozyme is resistant to endonuclease activity and hence is
CC   efficient in restenosis treatment.
XX
SQ   Sequence 19 BP; 5 A; 1 C; 4 G; 9 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 2.5e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1574 GTTTCTGATTGTATGGAAA 1592
              || | |||||  ||||||||

Db          1 GTCTTTGATTTTATGGAAA 19


RESULT 143
AAH58297
ID   AAH58297 standard; DNA; 19 BP.
XX
AC   AAH58297;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Cell-cycle dependent kinase cdk7 ribozyme binding site SEQ ID NO:721.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US29500.
XX
PR   26-OCT-1999;   99US-0161532.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using
PT   ribozymes that cleave RNA encoding cytokines involved in inflammation,
PT   matrix metalloproteinases, growth factors and cell-cycle dependent
PT   kinases -
XX
PS   Example 1; Page 124; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative
CC   skin diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 19 BP; 5 A; 1 C; 4 G; 9 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 2.5e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;
```

```
Qy       1574 GTTTCTGATTGTATGGAAA 1592
              || | ||||| ||||||||
Db          1 GTCTTTGATTTTATGGAAA 19
```

RESULT 144
ABX93225/c
ID ABX93225 standard; DNA; 19 BP.
XX
AC ABX93225;
XX
DT 30-MAY-2003 (first entry)
XX
DE PCR primer LP132R used to clone cDNA encoding cotton CYP706B1.
XX
KW Cotton; (+)-delta-cadinene 8-hydroxylase; CYP706B1; cytochrome P450;
KW biosynthesis of gossypol; sesquiterpene; cotton seed; cotton cultivate;
KW sesquiterpenoid; livestock feed; PCR; primer; ss.
XX
OS Gossypium arboreum.
XX
PN US2002187538-A1.
XX
PD 12-DEC-2002.
XX
PF 07-FEB-2002; 2002US-0067534.
XX
PR 07-FEB-2001; 2001US-267160P.
XX
PA (ESSE/) ESSENBERG M K.
PA (CHEN/) CHEN X.
PA (LUOP/) LUO P.
PA (WANG/) WANG Y.
XX
PI Essenberg MK, Chen X, Luo P, Wang Y;
XX
DR WPI; 2003-341036/32.
XX
PT Novel cotton (+)-gamma-cadinene 8-hydroxylase polypeptide designated as
PT CYP706B1, useful as target for suppression of biosynthesis of gossypol
PT formation in cotton seeds -
XX
PS Example 1; Page 4; 26pp; English.
XX
CC The present invention relates to the isolation of cotton
CC (+)-delta-cadinene 8-hydroxylase (designated as CYP706B1), and the
CC polynucleotide sequence encoding it. The CYP706B1 protein is
CC a cytochrome P450 which is useful as a target for suppression of the
CC biosynthesis of gossypol and related sesquiterpenes in cotton seeds
CC through genetic engineering techniques. The polynucleotide sequence
CC encoding CYP706B1 is useful in suppression of the biosynthesis of
CC gossypol and related sesquiterpenes in cotton seeds, where the
CC polynucleotide sequence is expressed in antisense or sense orientation
CC as a perfect match to the native gene whose expression is sought to
CC be suppressed. The polynucleotide sequence of the invention is useful
CC for producing cotton cultivates which avoid the presence of
CC sesquiterpenoids in their seeds, and for producing cotton seed product
CC which is suitable for use as a feed for both livestock and humans.
CC The present sequence represents a PCR primer used to clone cDNA
CC encoding cotton CYP706B1 in the examples of the present invention.
XX
SQ Sequence 19 BP; 3 A; 1 C; 8 G; 7 T; 0 other;

```
  Query Match             1.1%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 2.5e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        563 ACCATGAAATATCCAGAAC 581
              ||||| |||| ||||| ||
Db         19 ACCATCAAATCTCCAGCAC 1
```

RESULT 145
ABZ10313/c
ID ABZ10313 standard; DNA; 19 BP.
XX
AC ABZ10313;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related primer SEQ ID NO:453.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP03401.
XX
PR 26-MAR-2001; 2001US-278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T;
PI Pelet C, Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent
PT that distinguishes between methylated and non-methylated CpG
PT dinucleotides -
XX
PS Claim 11; Page 35; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related
CC DNA sequences. The nucleotide sequences from the present invention can
CC also be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables
CC a highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients.
XX
SQ Sequence 19 BP; 7 A; 9 C; 0 G; 3 T; 0 other;

```
  Query Match             1.1%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 2.5e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        476 TGTGGGTCTGTTGTAGGGT 494
              || |||  ||||||||||
Db         19 TGAGGGATTGTTGTAGGGT 1
```

```
RESULT 146
AAQ75568/c
ID   AAQ75568 standard; DNA; 20 BP.
XX
AC   AAQ75568;
XX
DT   04-AUG-1995  (first entry)
XX
DE   Reverse transcription primer used in cDNA analysis technique.
XX
KW   Analysis; gene expression; reverse transcription; primer; cDNA;
KW   aggregate; restriction enzyme; ss.
XX
OS   Synthetic.
XX
PN   JP06303997-A.
XX
PD   01-NOV-1994.
XX
PF   16-APR-1993;   93JP-0112515.
XX
PR   16-APR-1993;   93JP-0112515.
XX
PA   (NITE ) NIPPON TELEGRAPH & TELEPHONE CORP.
XX
DR   WPI; 1995-018287/03.
XX
PT   Analysis of cDNA and gene expression - by amplification of mRNA
PT   followed by digestion with restriction enzymes
XX
PS   Disclosure; Page 5; 11pp; Japanese.
XX
CC   A method for the analysis of cDNA comprises (a) preparing an
CC   aggregate of double-stranded cDNAs by using an aggregate of mRNAs
CC   and a plural type of labelled reverse transcription primers
CC   (GENESEQ files AAQ75547-Q75798) and using the aggregate of mRNAs as the
CC   template for each reverse transcription primer; (b) digesting each of
CC   the prepared aggregates of the double-stranded cDNAs with restriction
CC   enzyme and; (c) electrophoresing the digested aggregate of cDNAs in
CC   seperate lanes. The method can be used to analyse gene expression
CC   rapidly and easily.
XX
SQ   Sequence 20 BP; 1 A; 0 C; 1 G; 18 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        615 TACAAAAAACAACAAATAA 633
              |||||||||  || ||| ||
Db         20 TACAAAAAAAAAAAAAAAA 2


RESULT 147
AAQ91529/c
ID   AAQ91529 standard; DNA; 20 BP.
XX
AC   AAQ91529;
XX
DT   22-DEC-1995  (first entry)
XX
DE   Tyrosinase gene 3' primer.
XX
KW   Restriction fragment length polymorphism; RFLP; point mutation;
KW   mapping; primer; polymerase chain reaction; PCR; tyrosinase; ss.
XX
OS   Synthetic.
XX
PN   CA2136705-A.
XX
PD   27-MAY-1995.
XX
PF   25-NOV-1994;   94CA-2136705.
XX
PR   26-NOV-1993;   93US-0157269.
XX
PA   (CLAR-) CLARKE INST PSYCHIATRY.
XX
PI   Kennedy JL,  Petronis A;
XX
DR   WPI; 1995-255407/34.
XX
PT   Screening for polymorphism by amplification of pooled nucleic acid
PT   - restriction with endonuclease(s), sepn. of fragments and
PT   comparison of restriction patterns, for detecting disease related
PT   mutation(s), in genetic mapping etc.
XX
PS   Example 3; Page 28; 48pp; English.
XX
CC   A TaqI polymorphism at the CCAATT box of the human tyrosinase
CC   gene was identified by amplification of the 5' promoter region
CC   using the primers given in AAQ91528-29, and examination of the
CC   restriction patterns of the amplified products.
XX
SQ   Sequence 20 BP; 4 A; 8 C; 1 G; 7 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        964 TTGTGAGGACATGTGGAAG 982
              ||||||||||  | |||||
Db         20 TTGTGAGGACTAGAGGAAG 2


RESULT 148
AAT74234
ID   AAT74234 standard; DNA; 20 BP.
XX
AC   AAT74234;
XX
DT   10-FEB-1998  (first entry)
XX
DE   Mouse bg critical region YAC STS D13Sfk8 reverse primer.
XX
KW   Lyst1; mouse; lysosomal trafficking regulator; beige; bg gene;
KW   Chediak-Higashi syndrome; CH syndrome; sequence tagged site; STS;
KW   D13Sfk8; yeast artificial chromosome; YAC; PCR; primer; ss.
XX
OS   Synthetic.
OS   Mus musculus.
XX
PN   WO9728262-A1.
XX
PD   07-AUG-1997.
XX
PF   31-JAN-1997;   97WO-US01748.
XX
PR   23-DEC-1996;   96US-0034346.
PR   01-FEB-1996;   96US-0011146.
PR   20-DEC-1996;   96US-0033599.
XX
PA   (UYFL ) UNIV FLORIDA.
XX
PI   Barbosa-Alleyne MDFS,  Kingsmore SF;
XX
DR   WPI; 1997-402616/37.
XX
PT   Mammalian lysosomal trafficking regulators LYST1, Lyst1, LYST2 and
PT   Lyst2 - useful to diagnose Chediak-Higashi syndrome
XX
PS   Example 1; Page 68; 237pp; English.
XX
CC   This oligonucleotide comprises a reverse primer sequence for
```

```
CC   novel sequence tagged site (STS) D13Sfk8.  It produces a 143 bp
CC   amplicon when used with a D13Sfk8 forward primer (see AAT74212).
CC   Novel STS were isolated from murine beige (bg) critical region
CC   yeast artificial chromosomes by interspersed repetitive element
CC   (IRE)-PCR (D13Sfk1-D13Sfk12) or by direct selection (D13Sfk13-
CC   D13Sfk19).  Characterisation of the bg critical region in murine
CC   chromosome 13 and positional cloning of bg were performed as an
CC   antecedent to identification of the homologous human gene LYST1
CC   (see AAT74201), which is mutated in human Chediak-Higashi syndrome.
XX
SQ   Sequence 20 BP; 7 A; 6 C; 2 G; 5 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        792 TAAATTTTGCCATAAAGTC 810
              ||||| |||||||||| ||
Db          1 TAAATGCTGCCATAAACTC 19


RESULT 149
AAT47265
ID   AAT47265 standard; RNA; 20 BP.
XX
AC   AAT47265;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment #2 of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= 7-methylguanosine
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= triphosphorylated
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 12; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 20 BP; 3 A; 1 C; 2 G; 14 U; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   21.1%;  Pred. No. 2.7e+02;
  Matches    4;  Conservative   12;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1519 GCTTTATATTTTTAACTTT 1537
                | ::: :|:::::|| :::
Db          1 GGUUUUUAUUUUUAAUUUU 19


RESULT 150
AAZ06093/c
ID   AAZ06093 standard; DNA; 20 BP.
XX
AC   AAZ06093;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB01939.
XX
PR   04-NOV-1998;   98US-0107077.
PR   28-NOV-1997;   97FR-0015041.
PR   17-DEC-1997;   97FR-0016034.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis
XX
PS   Disclosure; Page 1824; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences
CC   can also be used to control growth of the microorganism. Chlamydia
CC   trachomatis is responsible for a large number of diseases, e.g. eye
CC   diseases such as conventional trachoma, nonendemic trachoma,
CC   paratrachoma, and inclusion conjunctivitis; genital diseases such as
CC   nongonococcal uretritis, epidymitis, cervicitis, salpingitis,
CC   perihepatitis, bartholinitis; pneumopathy in breast feeding infants;
CC   and venereal lymphogranulomatosis. The polypeptides of the
CC   invention may be of use in treating these diseases.
XX
SQ   Sequence 20 BP; 7 A; 5 C; 5 G; 3 T; 0 other;
```

```
  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1319 CCTAGTTTGATACTCCCAG 1337
              ||| |||||||| ||||| 
Db         20 CCTTGTTTGATATGCCCAG 2


RESULT 151
AAZ01504
ID   AAZ01504 standard; DNA; 20 BP.
XX
AC   AAZ01504;
XX
DT   07-OCT-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia trachomatis.
XX
KW   Vaccine; eye disease; conventional trachoma; nonendemic trachoma;
KW   paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis;
KW   nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer;
KW   bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
XX
OS   Synthetic.
OS   Chlamydia trachomatis.
XX
PN   WO9928475-A2.
XX
PD   10-JUN-1999.
XX
PF   27-NOV-1998;   98WO-IB01939.
XX
PR   04-NOV-1998;   98US-0107077.
PR   28-NOV-1997;   97FR-0015041.
PR   17-DEC-1997;   97FR-0016034.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-371125/31.
XX
PT   Genome sequence of Chlamydia trachomatis
XX
PS   Disclosure; Page 1448; 1755pp; English.
XX
CC   PCR primers AAZ01426-Z06209 were used to amplify open reading frames
CC   (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
CC   encode polypeptides (see AAY36754-Y37949) which can be used as vaccines
CC   against Chlamydia trachomatis. Antisense and ribozyme sequences
CC   can also be used to control growth of the microorganism. Chlamydia
CC   trachomatis is responsible for a large number of diseases, e.g. eye
CC   diseases such as conventional trachoma, nonendemic trachoma,
CC   paratrachoma, and inclusion conjunctivitis; genital diseases such as
CC   nongonococcal uretritis, epidymitis, cervicitis, salpingitis,
CC   perihepatitis, bartholinitis; pneumopathy in breast feeding infants;
CC   and venereal lymphogranulomatosis. The polypeptides of the
CC   invention may be of use in treating these diseases.
XX
SQ   Sequence 20 BP; 3 A; 2 C; 6 G; 9 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1518 GGCTTTATATTTTTAACTT 1536
              ||| |||| | ||||||||
Db          1 GGCGTTATGTGTTTAACTT 19


RESULT 152
AAX96384/c
ID   AAX96384 standard; DNA; 20 BP.
XX
AC   AAX96384;
XX
DT   13-SEP-1999  (first entry)
XX
DE   PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW   Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW   sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
KW   vaccine; neutralising epitope; PCR primer; ss.
XX
OS   Synthetic.
OS   Chlamydia pneumoniae.
XX
PN   WO9927105-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-IB01890.
XX
PR   04-NOV-1998;   98US-0107078.
PR   21-NOV-1997;   97FR-0014673.
XX
PA   (GEST ) GENSET.
XX
PI   Griffais R;
XX
DR   WPI; 1999-357842/30.
XX
PT   Genome sequence of Chlamydia pneumoniae
XX
PS   Page 1822; Disclosure; 1912pp; English.
XX
CC   AAX91991-X97517 represent PCR primers used to amplify open reading
CC   frames and other nucleic acid sequences from the genome of
CC   Chlamydia pneumoniae (see AAX91990). C. pneumoniae causes respiratory
CC   disease such as pneumonia and bronchitis and is thought to be a
CC   contributing factor in heart disease, sarcoidosis, sinusitis, purulent
CC   otitis media, erythema nodosum or pharyngitis. The polypeptides encoded
CC   by the open reading frames of the C. pneumoniae genome (see AAY34584-
CC   AAY35879) can be used in immunogenic compositions as vaccines. Vectors
CC   containing C. pneumoniae nucleotides sequences can also be used as
CC   immunogenic compositions, especially where the vector directs the
CC   expression of a neutralising epitope of C. pneumoniae.
XX
SQ   Sequence 20 BP; 5 A; 6 C; 4 G; 5 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        968 GAGGACATGTGGAAGCACT 986
              ||||| || ||||||| ||
Db         19 GAGGATATTTGGAAGCCCT 1


RESULT 153
AAX15294
ID   AAX15294 standard; DNA; 20 BP.
XX
AC   AAX15294;
XX
DT   29-APR-1999  (first entry)
XX
DE   PCR primer RF-S4.
XX
KW   Thermostable polypeptide factor; DNA synthesis activity;
KW   DNA polymerase; in vitro DNA synthesis; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO9900506-A1.
```

XX
PD 07-JAN-1999.
XX
PF 24-JUN-1998; 98WO-JP02845.
XX
PR 21-NOV-1997; 97JP-0320692.
PR 26-JUN-1997; 97JP-0187496.
XX
PA (TAKI) TAKARA SHUZO CO LTD.
XX
PI Asada K, Fujita T, Kato I, Miyake K, Mukai H, Sato Y;
PI Uemori T;
XX
DR WPI; 1999-095751/08.
XX
PT Thermostable polypeptide factors promoting the activity of DNA
PT polymerase - for improvement of DNA synthesis and amplification in
PT vitro.
XX
PS Example 9; Page 127; 177pp; Japanese.
XX
CC The present PCR primer was used in the course of the invention. The
CC specification describes Pyrococcus furiosus thermostable polypeptide
CC factors. These factors bind to, and promote the DNA synthesis activity
CC of DNA polymerase. The polymerase related factors can be used to
CC provide more efficient in vitro DNA synthesis and amplification
CC systems (e.g. for polymerase chain reaction) by using the factors in
CC conjunction with a DNA polymerase.
XX
SQ Sequence 20 BP; 5 A; 2 C; 4 G; 9 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 583 TACTTATATGTAAAGTATT 601
|| | ||||||||||||||||||
Db 1 TTCTGCTATGTAAAGTATT 19

RESULT 154
AAX15295/c
ID AAX15295 standard; DNA; 20 BP.
XX
AC AAX15295;
XX
DT 29-APR-1999 (first entry)
XX
DE PCR primer RP-S5.
XX
KW Thermostable polypeptide factor; DNA synthesis activity;
KW DNA polymerase; in vitro DNA synthesis; PCR primer; ss.
XX
OS Synthetic.
XX
PN WO9900506-A1.
XX
PD 07-JAN-1999.
XX
PF 24-JUN-1998; 98WO-JP02845.
XX
PR 21-NOV-1997; 97JP-0320692.
PR 26-JUN-1997; 97JP-0187496.
XX
PA (TAKI) TAKARA SHUZO CO LTD.
XX
PI Asada K, Fujita T, Kato I, Miyake K, Mukai H, Sato Y;
PI Uemori T;
XX
DR WPI; 1999-095751/08.
XX
PT Thermostable polypeptide factors promoting the activity of DNA
PT polymerase - for improvement of DNA synthesis and amplification in
PT vitro.
XX
PS Example 9; Page 128; 177pp; Japanese.
XX
CC The present PCR primer was used in the course of the invention. The
CC specification describes Pyrococcus furiosus thermostable polypeptide
CC factors. These factors bind to, and promote the DNA synthesis activity
CC of DNA polymerase. The polymerase related factors can be used to
CC provide more efficient in vitro DNA synthesis and amplification
CC systems (e.g. for polymerase chain reaction) by using the factors in
CC conjunction with a DNA polymerase.
XX
SQ Sequence 20 BP; 9 A; 4 C; 2 G; 5 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 583 TACTTATATGTAAAGTATT 601
|| | ||||||||||||||||||
Db 20 TTCTGCTATGTAAAGTATT 2

RESULT 155
AAA38895
ID AAA38895 standard; DNA; 20 BP.
XX
AC AAA38895;
XX
DT 25-AUG-2000 (first entry)
XX
DE PCR primer SEQ ID NO:24 used in Example 1.
XX
KW Replication fork inhibitor protein; amplification; ARS; PCR primer;
KW autonomously replicating sequence; recombinant protein; ss.
XX
OS Synthetic.
XX
PN WO200022107-A1.
XX
PD 20-APR-2000.
XX
PF 14-OCT-1999; 99WO-JP05673.
XX
PR 15-OCT-1998; 98JP-0292697.
XX
PA (KYOW) KYOWA HAKKO KOGYO KK.
PA (HORI/) HORIUCHI T.
XX
PI Horiuchi T, Kobayashi T;
XX
DR WPI; 2000-317967/27.
XX
PT Amplification of a foreign gene by recombining close to a recombination
PT hot spot and autonomously replicating sequence and culturing in the
PT presence of a replication fork inhibitor protein for efficient foreign
PT gene expression -
XX
PS Example 1; Page 48; 66pp; Japanese.
XX
CC The present invention describes a method for amplifying a foreign gene
CC which comprises transferring the foreign gene into a host close to a
CC recombination hot spot and an autonomously replicating sequence and
CC culturing it in the presence of a replication fork inhibitor protein.
CC The replication fork inhibitor proteins, and vectors containing them,
CC can be used to produce recombinant proteins with increased efficiency.
CC AAA38872 to AAA38895 represent PCR primers which are used in an example
CC from the present invention.
XX
SQ Sequence 20 BP; 5 A; 7 C; 2 G; 6 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;

```
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        441 CTTCAAGCAAATCTACTTC 459
              | || | ||||||||||||
Db          1 CGTCCATCAAATCTACTTC 19


RESULT 156
AAH80900/c
ID   AAH80900 standard; cDNA; 20 BP.
XX
AC   AAH80900;
XX
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 864.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus type 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-0021701.
XX
PR   10-FEB-1998;   98US-0021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters  -
XX
PS   Example 2; Column 73; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
XX
SQ   Sequence 20 BP; 9 A; 1 C; 5 G; 5 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        982 GCACTTTAAGTTTTTTCAT 1000
              |||||||||  ||||  |||
Db         20 GCACTTTAAATTTTCCCAT 2


RESULT 157
AAH80901/c
ID   AAH80901 standard; cDNA; 20 BP.
XX
AC   AAH80901;
XX
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 865.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus type 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-0021701.
XX
PR   10-FEB-1998;   98US-0021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI   Shannon KW,  Wolber PK,  Delenstarr GC,  Webb PG,  Kincaid RH;
XX
DR   WPI; 2001-424456/45.
XX
PT   Predicting the potential of an oligonucleotide to hybridize to a target
PT   nucleotide sequence, useful for evaluating oligonucleotide probe
PT   sequences, by identifying a oligonucleotides based on the evaluation of
PT   parameters  -
XX
PS   Example 2; Column 73; 342pp; English.
XX
CC   The present invention describes a method for predicting the potential of
CC   an oligonucleotide to hybridise to a (complementary) target nucleotide
CC   sequence, involving identifying a subset of oligonucleotides within the
CC   predetermined number of unique oligonucleotides based on the evaluation
CC   of the parameter. Oligonucleotides in the subset are identified that are
CC   clustered along a region of the nucleotide sequence that is hybridisable
CC   to the target nucleotide sequence. This is useful for evaluating
CC   oligonucleotide probe sequences. The present sequence is an
CC   oligonucleotide described in the exemplification of the invention.
XX
SQ   Sequence 20 BP; 9 A; 1 C; 5 G; 5 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        982 GCACTTTAAGTTTTTTCAT 1000
              |||||||||  ||||  |||
Db         19 GCACTTTAAATTTTCCCAT 1


RESULT 158
AAH80905/c
ID   AAH80905 standard; cDNA; 20 BP.
XX
AC   AAH80905;
XX
DT   19-SEP-2001  (first entry)
XX
DE   Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 869.
XX
KW   Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW   disease diagnosis; ss.
XX
OS   Human immunodeficiency virus type 1.
XX
PN   US6251588-B1.
XX
PD   26-JUN-2001.
XX
PF   10-FEB-1998;   98US-0021701.
XX
PR   10-FEB-1998;   98US-0021701.
XX
PA   (AGIL-) AGILENT TECHNOLOGIES INC.
XX
```

PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters -
XX
PS Example 2; Column 73; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
XX
SQ Sequence 20 BP; 10 A; 3 C; 3 G; 4 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 977 TGGAAGCACTTTAAGTTTT 995
||| ||||||||| ||||
Db 20 TGGTTGCACTTTAAATTTT 2

RESULT 159
AAH80906/c
ID AAH80906 standard; cDNA; 20 BP.
XX
AC AAH80906;
XX
DT 19-SEP-2001 (first entry)
XX
DE Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 870.
XX
KW Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
KW disease diagnosis; ss.
XX
OS Human immunodeficiency virus type 1.
XX
PN US6251588-B1.
XX
PD 26-JUN-2001.
XX
PF 10-FEB-1998; 98US-0021701.
XX
PR 10-FEB-1998; 98US-0021701.
XX
PA (AGIL-) AGILENT TECHNOLOGIES INC.
XX
PI Shannon KW, Wolber PK, Delenstarr GC, Webb PG, Kincaid RH;
XX
DR WPI; 2001-424456/45.
XX
PT Predicting the potential of an oligonucleotide to hybridize to a target
PT nucleotide sequence, useful for evaluating oligonucleotide probe
PT sequences, by identifying a oligonucleotides based on the evaluation of
PT parameters -
XX
PS Example 2; Column 73; 342pp; English.
XX
CC The present invention describes a method for predicting the potential of
CC an oligonucleotide to hybridise to a (complementary) target nucleotide
CC sequence, involving identifying a subset of oligonucleotides within the
CC predetermined number of unique oligonucleotides based on the evaluation
CC of the parameter. Oligonucleotides in the subset are identified that are
CC clustered along a region of the nucleotide sequence that is hybridisable
CC to the target nucleotide sequence. This is useful for evaluating
CC oligonucleotide probe sequences. The present sequence is an
CC oligonucleotide described in the exemplification of the invention.
XX
SQ Sequence 20 BP; 11 A; 3 C; 2 G; 4 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 977 TGGAAGCACTTTAAGTTTT 995
||| ||||||||| ||||
Db 19 TGGTTGCACTTTAAATTTT 1

RESULT 160
AAH56708
ID AAH56708 standard; DNA; 20 BP.
XX
AC AAH56708;
XX
DT 06-SEP-2001 (first entry)
XX
DE S. aureus groE operon antisense oligonucleotide SEQ ID NO:356.
XX
KW Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW antibacterial; antiviral; antiproliferative; antisense therapy;
KW microbial infection; ss.
XX
OS Staphylococcus aureus.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA01347.
XX
PR 18-NOV-1999; 99US-0166249.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or
PT groES gene of microorganism, which hybridize with and inhibit
PT expression of the genes, useful to inhibit growth of microorganism
PT having the genes -
XX
PS Claim 3; Page 51; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or
CC GS of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral
CC and antiproliferative activities, and can be used in antisense therapy
CC and for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or
CC a virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL

```
CC   or GS gene and administering (I) such that the growth of microorganism
CC   is inhibited. The antisense compounds are utilised for diagnostics,
CC   therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC   prevent or delay microbial infections in humans. They are also useful as
CC   molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC   represent PCR primers for groE sequences which are used in the
CC   exemplification of the present invention. AAH56855 to AAH56870 represent
CC   groE nucleotide sequence given in the present invention.
XX
SQ   Sequence 20 BP; 3 A; 5 C; 2 G; 10 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1566 TTTTTACTGTTTCTGATTG 1584
              ||||||| | |||| ||||
Db          2 TTTTTACCGCTTCTCATTG 20


RESULT 161
ABQ79871/c
ID   ABQ79871 standard; DNA; 20 BP.
XX
AC   ABQ79871;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Nucleotide sequence of a PCR primer #1.
XX
KW   Polymerase chain reaction; thermal cycle; immobilisation;
KW   genetic engineering; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   JP2002191369-A.
XX
PD   09-JUL-2002.
XX
PF   27-DEC-2000; 2000JP-0399573.
XX
PR   27-DEC-2000; 2000JP-0399573.
XX
PA   (TOJO ) TOYO KOHAN CO LTD.
PA   (TAKA/) TAKAHASHI K.
XX
DR   WPI; 2002-630904/68.
XX
PT   Carrying out a thermal cycle of polymerase chain reaction (PCR) by
PT   using a substrate on which a DNA is immobilized used in medical,
PT   biochemical, molecular biological and gene engineering fields  -
XX
PS   Examples; Page 9; 13pp; Japanese.
XX
CC   The invention relates to performing a thermal cycle of PCR by using a
CC   substrate on which a deoxyribonucleic acid (DNA) is immobilized. The
CC   method is useful in the medical, biochemical, molecular biological and
CC   genetic engineering fields. Sequences ABQ79871-881 represent PCR primers
CC   used in the method of the invention.
XX
SQ   Sequence 20 BP; 3 A; 0 C; 0 G; 17 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        618 AAAAAACAACAAATAATTT 636
              |||||| || ||| |||||
Db         19 AAAAAAAAAAAAAAAATTT 1


RESULT 162
ABS67672/c
ID   ABS67672 standard; DNA; 20 BP.
XX
AC   ABS67672;
XX
DT   29-NOV-2002  (first entry)
XX
DE   Casein kinase-2 antisense oligonucleotide ISIS127172.
XX
KW   ss; antisense therapy; casein kinase-2 alpha; cytostatic; antidiabetic;
KW   antiinflammatory; diabetes; hyperproliferative disorder; cancer; human;
KW   breast cancer; prostate cancer; liver cancer; infection; inflammation;
KW   tumour; mouse.
XX
OS   Homo sapiens.
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1..20
FT                   /*tag=  a
FT                   /label= OTHER
FT                   /note= "All cytidines are 5-methylcytidine.
FT                   Phosphorothioate backbone"
FT   modified_base   1..5
FT                   /*tag=  b
FT                   /label= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   16..20
FT                   /*tag=  c
FT                   /label= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
XX
PN   WO200262818-A2.
XX
PD   15-AUG-2002.
XX
PF   31-JAN-2002; 2002WO-US02942.
XX
PR   08-FEB-2001; 2001US-0780172.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   McKay R,  Freier SM,  Wyatt JR;
XX
DR   WPI; 2002-627521/67.
XX
PT   New antisense oligonucleotides targeted to nucleic acid encoding casein
PT   kinase 2-alpha, useful in diagnostic and research applications, or for
PT   treating a disease or condition associated with expression of casein
PT   kinase 2-alpha  -
XX
PS   Claim 3; Page 95; 166pp; English.
XX
CC   The invention relates to a compound 8-50 nucleobases in length targeted
CC   to a nucleic acid molecule encoding casein kinase 2-alpha. The compound
CC   specifically hybridises with and inhibits the expression of casein
CC   kinase 2-alpha, or specifically hybridises with at least an
CC   8-nucleobase portion of an active site on a nucleic acid molecule
CC   encoding casein kinase 2-alpha i.e. an antisense oligonucleotide.
CC   Also included are: (1) a composition comprising the compound and a
CC   carrier or diluent; (2) inhibiting the expression of casein kinase
CC   2-alpha in cells or tissues by contacting the cells or tissues with the
CC   novel compound; and (3) treating an animal having a disease or condition
CC   associated with casein kinase 2-alpha by administering to the animal the
CC   compound cited above so that expression of casein kinase 2-alpha is
CC   inhibited. The antisense compounds are useful for modulating the
CC   expression of casein kinase 2-alpha and for treating diseases or
CC   conditions associated with expression of casein kinase 2-alpha, e.g.
CC   diabetes or hyperproliferative disorder, particularly cancer, such as
CC   breast cancer, prostate cancer, or liver cancer. The antisense
CC   compounds are also useful for diagnostics, therapeutics, prophylaxis,
CC   e.g. to prevent or delay infection, inflammation or tumour formation, as
CC   research reagents and kits, and in distinguishing between functions of
CC   various members of a biological pathway. The present sequence is a
```

CC casein kinase-2 alpha antisense oligonucleotide of the invention.
XX
SQ Sequence 20 BP; 5 A; 3 C; 5 G; 7 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 438 AAACTTCAAGCAAATCTAC 456
|| |||||||||| | |||
Db 19 AGACTTCAAGCAATTGTAC 1

RESULT 163
ABS59257
ID ABS59257 standard; DNA; 20 BP.
XX
AC ABS59257;
XX
DT 05-NOV-2002 (first entry)
XX
DE Human CAS gene antisnese oligonucleotide, ISIS 128210.
XX
KW Human; ss; antisense; cellular apoptosis susceptibility gene;
KW antiinflammatory; antitumour; cytostatic; CAS; CSE1; CSP;
KW chromosome 20q13; mitosis; apoptosis; proliferation; cancer;
KW importin-alpha; nuclear localisation; cell cycle;
KW hyperproliferative disorder; degenerative disorder; Alzheimer's disease;
KW Parkinson's disease; amyotrophic lateral sclerosis; ALS;
KW retinitis pigmentosa; blood cell disorder; gene therapy; infection;
KW inflammation; tumour.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 1..20
FT /*tag= a
FT /mod_base= "OTHER"
FT /note= "OTHER = phosphorothioate backbone, all cytidine
FT residues are 5-methylcytidines"
FT modified_base 1..5
FT /*tag= b
FT /mod_base= "OTHER"
FT /note= "OTHER = 2'-O-methoxyethyl nucleotides"
FT modified_base 16..20
FT /*tag= c
FT /mod_base= "OTHER"
FT /note= "OTHER = 2'-O-methoxyethyl nucleotides"
XX
PN WO200246367-A2.
XX
PD 13-JUN-2002.
XX
PF 29-OCT-2001; 2001WO-US51048.
XX
PR 01-NOV-2000; 2000US-0705299.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Cowsert LM, Freier SM;
XX
DR WPI; 2002-608254/65.
XX
PT New antisense compound that hybridizes and inhibits nucleic acid
PT encoding cellular apoptosis susceptibility gene, useful for treating a
PT hyperproliferative disorder such as cancer -
XX
PS Claim 3; Page 91; 135pp; English.
XX
CC The invention discloses antisense compounds, of 8 - 50 nucleobases in
CC length, targeted to a nucleic acid molecule encoding a human cellular
CC apoptosis susceptibility gene (CAS or CSE1 or CSP), located on chromosome
CC 20q13. CAS has been implicated in the regulation of mitosis, apoptosis
CC and cellular proliferation and is highly expressed in some cancer cells.
CC CAS has also been shown to mediate export of importin-alpha from the
CC nucleus. Importin-alpha is a nuclear import receptor for nuclear
CC localisation signal-containing proteins and deregulation of importin
CC transport is involved in cell cycle defects. The antisense compounds
CC specifically hybridise with, and inhibit expression of, the gene or
CC specifically hybridise with an 8 nucleobase portion of its active site.
CC The antisense compounds are useful for inhibiting the expression of a
CC cellular apoptosis susceptibility gene in cells or tissues and for
CC treating an animal having a disease or condition associated with a
CC cellular apoptosis susceptibility gene, where the disease or condition is
CC a hyperproliferative disorder such as cancer, preferably breast or colon
CC cancer, degenerative disorders such as Alzheimer's disease, Parkinson's
CC disease, amyotrophic lateral sclerosis (ALS), retinitis pigmentosa and
CC blood cell disorders. The compounds are also useful for diagnostics,
CC therapeutics, prophylaxis, as research reagents and kits, for
CC distinguishing functions of various members of a biological pathway, in
CC antisense gene therapy and prophylactically (e.g. to prevent or delay
CC infection, inflammation or tumour formation). The antisense
CC oligonucleotides in ABS59252-ABS59322 are targeted to the human CAS gene.
XX
SQ Sequence 20 BP; 8 A; 3 C; 3 G; 6 T; 0 other;

Query Match 1.1%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 2.7e+02;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1307 TGAACTAACAATCCTAGTT 1325
|||| ||| |||||||||
Db 1 TGAAATAAACATCCTAGTT 19

RESULT 164
ABQ62328/c
ID ABQ62328 standard; DNA; 20 BP.
XX
AC ABQ62328;
XX
DT 16-AUG-2002 (first entry)
XX
DE Human syntaxin 4 interacting protein antisense oligonucleotide 67.
XX
KW Human; antisense gene therapy; Syntaxin 4 interacting protein; ss;
KW antisense oligonucleotide; diabetes; obesity; skeletal muscle disorder;
KW inflammation; tumour formation; phosphorothioate backbone;
KW 2'-O-methoxyethyl wing.
XX
OS Homo sapiens.
XX
PN WO200224864-A2.
XX
PD 28-MAR-2002.
XX
PF 19-SEP-2001; 2001WO-US29251.
XX
PR 22-SEP-2000; 2000US-0668313.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Freier SM, Wyatt JR;
XX
DR WPI; 2002-401986/43.
XX
PT Novel antisense compound that hybridizes and inhibits nucleic acid
PT molecule encoding Syntaxin 4 interacting protein, useful for treating
PT diabetes, obesity and skeletal muscle disorder -
XX
PS Claim 3; Page 84; 154pp; English.
XX
CC The invention comprises antisense oligonucleotides designed to inhibit
CC expression of Syntaxin 4 interacting protein. The antisense
CC oligonucleotides of the invention are useful for inhibiting the

```
CC   expression of Syntaxin 4 interacting protein in cells or tissues. The
CC   antisense oligonucleotides are also useful for treating an animal having
CC   a disease or condition associated with Syntaxin 4 interacting protein
CC   (e.g. diabetes, obesity or a skeletal muscle disorder). The antisense
CC   oligonucleotides can also be used to prevent or delay infection,
CC   inflammation and tumour formation. The present DNA sequence represents a
CC   human Syntaxin 4 interacting protein antisense oligonucleotide.
CC   NOTE: The present sequence contains a phosphorothioate backbone and
CC   2'-O-methoxyethyl wings.
XX
SQ   Sequence 20 BP; 10 A; 1 C; 2 G; 7 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1045 TATTTATGTATTTATTTAA 1063
              ||||| ||||| ||||||
Db         19 TATTTCTGTATACATTTAA 1


RESULT 165
AAS18578
ID   AAS18578 standard; DNA; 20 BP.
XX
AC   AAS18578;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human translocating chain-associated membrane protein, RT-PCR primer #2.
XX
KW   Human; translocating chain-associated membrane protein; BioTRAM;
KW   reverse transcriptase PCR; RT-PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   CN1310184-A.
XX
PD   29-AUG-2001.
XX
PF   24-FEB-2000; 2000CN-0111729.
XX
PR   24-FEB-2000; 2000CN-0111729.
XX
PA   (SHAN-) SHANGHAI SHENGYUAN GENE DEV CO LTD.
XX
PI   Mao Y,  Xie Y;
XX
DR   WPI; 2002-034947/05.
XX
PT   New human transposition chain related membrane protein and its coding
PT   sequence -
XX
PS   Example 3; Page 12; 22pp; Chinese.
XX
CC   The invention relates to a novel human translocating chain associating
CC   membrane protein (BioTRAM), polynucleotides encoding this polypeptide
CC   and the recombination process used to produce the polypeptide. The
CC   present invention also discloses the method of applying the polypeptide
CC   and polynucleotides in treating immunological disorder, malignant tumour,
CC   cancer and other diseases. The antagonist resisting the polypeptide and
CC   its treatment effect is also disclosed. Diagnosis and determination
CC   method based on the discrimination of the mutation in the nucleic acid
CC   sequence and the change in the polypeptide expression level, and the
CC   application of the polynucleotides encoding the BioTRAM. The present
CC   sequence represents a reverse transcriptase (RT)-PCR primer used to
CC   isolate the coding sequence of the novel human BioTRAM protein as
CC   described in the invention.
XX
SQ   Sequence 20 BP; 8 A; 0 C; 1 G; 11 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        591 TGTAAAGTATTATTTATTT 609
              | ||||||| |||||| ||
Db          2 TTTAAAGTAATATTTAATT 20


RESULT 166
ACC47011
ID   ACC47011 standard; DNA; 20 BP.
XX
AC   ACC47011;
XX
DT   05-JUN-2003  (first entry)
XX
DE   Mouse phospholipase A2 antisense oligonucleotide SEQ ID NO:108.
XX
KW   Phospholipase A2 group IIA; synovial; antisense modulation; inflammation;
KW   phospholipase A2 group IIA inhibitor; phosphorothioate; antiinflammatory;
KW   antidiabetic; cytostatic; antipsoriatic; vaccine; gene therapy; cancer;
KW   psoriasis; diabetes; ss.
XX
OS   Mus musculus.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1..20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate backbone"
FT   modified_base    1..5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT   modified_base    16..20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
XX
PN   WO200297133-A1.
XX
PD   05-DEC-2002.
XX
PF   21-MAY-2002; 2002WO-US16135.
XX
PR   25-MAY-2001; 2001US-0865866.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Wyatt JR;
XX
DR   WPI; 2003-140495/13.
XX
PT   New compound that hybridizes with and inhibits the expression of
PT   Phospholipase A2, group IIA, useful for preparing a composition for
PT   treating or preventing inflammation, cancer, psoriasis or diabetes  -
XX
PS   Claim 3; Page 89; 135pp; English.
XX
CC   The present invention describes a compound (I) comprising 8-50
CC   nucleobases which is targeted to a 5' untranslated region (UTR), coding,
CC   3' UTR or intron region of a nucleic acid molecule encoding phospholipase
CC   A2, group IIA (synovial), where the compound specifically hybridises with
CC   and inhibits the expression of phospholipase A2, group IIA (synovial).
CC   Also described: (1) a composition comprising the compound and a carrier
CC   or diluent; (2) a method of inhibiting the expression of phospholipase
CC   A2, group IIA in cells or tissues; and (3) a method of treating an
CC   animal having a disease or condition associated with phospholipase A2,
CC   group IIA (synovial). (I) has antiinflammatory, antidiabetic, cytostatic
CC   and antipsoriatic activities, and can be used in vaccines and in gene
CC   therapy. The compound (I) can be used for preparing a composition for
CC   treating or preventing inflammation, cancer, psoriasis or diabetes. The
CC   present sequence represents a mouse phospholipase A2 group IIA (synovial)
```

```
CC   chimeric phosphorothioate antisense oligonucleotide, which is used in an
CC   example from the present invention.
XX
SQ   Sequence 20 BP; 7 A; 4 C; 5 G; 4 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        690 ATTGGGCCAAGGGCCAAGA 708
              |||| ||||| ||||| ||
Db          1 ATTGAGCCAAAGGCCATGA 19


RESULT 167
AAD52331/c
ID   AAD52331 standard; DNA; 20 BP.
XX
AC   AAD52331;
XX
DT   02-MAY-2003  (first entry)
XX
DE   Human IFNGR2 antisense oligonucleotide, ISIS #142809.
XX
KW   Antisense; interferon gamma receptor 2; autoimmune disorder; cancer;
KW   autoimmune thyroiditis; autoimmune insulinitis; multiple sclerosis;
KW   diabetes; autoimmune arthritis; Crohn's disease; apoptosis; IFNGR2;
KW   gene therapy; prophylaxis; human; phosphorothioate; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1..20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone; All cytidine
FT                   residues are 5-methylcytidines"
FT   modified_base   1..5
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
FT   modified_base   16..20
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "2'-methoxyethyl nucleotides"
XX
PN   WO200288163-A1.
XX
PD   07-NOV-2002.
XX
PF   16-APR-2002; 2002WO-US12007.
XX
PR   26-APR-2001; 2001US-0843377.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Bennett CF,  Watt AT;
XX
DR   WPI; 2003-156688/15.
XX
PT   New antisense oligonucleotides for modulating Interferon gamma receptor
PT   2, particularly useful for treating autoimmune disorders (e.g. multiple
PT   sclerosis or Crohn's disease), cancers or diseases caused by aberrant
PT   apoptosis  -
XX
PS   Example 15; Page 86; 127pp; English.
XX
CC   The invention relates to antisense compounds, composition and methods for
CC   modulating the expression of human interferon gamma receptor 2 (IFNGR2).
CC   The compositions comprise antisense compounds targetted to nucleic acids
CC   encoding IFNGR2. Antisense compounds of the invention are useful for
CC   treating diseases or conditions associated with IFNGR2, e.g. autoimmune
CC   disorder (e.g. autoimmune thyroiditis, diabetes, multiple sclerosis,
CC   autoimmune arthritis, autoimmune insulinitis or Crohn's disease), cancer,
CC   or a disease/disorder caused by aberrant apoptosis. They are also useful
CC   for diagnostics, therapeutics, prophylaxis or as research reagents or
CC   kits. The invention is useful in gene therapy. The present sequence is
CC   an antisense oligonucleotide targetted to human IFNGR2 DNA.
XX
SQ   Sequence 20 BP; 6 A; 2 C; 5 G; 7 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        437 GAAACTTCAAGCAAATCTA 455
              |||||||| ||||  ||||
Db         19 GAAACTTCCAGCATTTCTA 1


RESULT 168
AAD51486/c
ID   AAD51486 standard; DNA; 20 BP.
XX
AC   AAD51486;
XX
DT   16-APR-2003  (first entry)
XX
DE   3' end of the cotton genomic remnant DNA.
XX
KW   Insect resistance; MON15985 event; plant breeding; cotton; ds.
XX
OS   Gossypium hirsutum.
XX
PN   WO2002100163-A2.
XX
PD   19-DEC-2002.
XX
PF   05-JUN-2002; 2002WO-US17853.
XX
PR   11-JUN-2001; 2001US-297406P.
XX
PA   (MONS ) MONSANTO TECHNOLOGY LLC.
XX
PI   Huber SA,  Roberts JK,  Shappley ZW,  Doherty S;
XX
DR   WPI; 2003-148719/14.
XX
PT   Insect resistant cotton plants, tissues and seeds that include the
PT   MON15985 event, useful in plant insect protection and plant breeding  -
XX
PS   Disclosure; Page 46; 52pp; English.
XX
CC   The invention relates to insect resistant cotton plants, tissues and
CC   seeds that include the MON15985 event. The methods and compositions
CC   of the invention are useful in the field of plant molecular biology,
CC   in particular plant insect protection and plant breeding. The MON15985
CC   event confers resistance to Lepidopteran insect damage. The present
CC   sequence is 3' end of the cotton genomic remnant DNA. This sequence
CC   is used in the exemplification of the invention.
XX
SQ   Sequence 20 BP; 5 A; 1 C; 7 G; 7 T; 0 other;

  Query Match             1.1%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2.7e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1310 ACTAACAATCCTAGTTTGA 1328
              || ||||| |||| |||||
Db         19 ACCAACAACCCTACTTTGA 1


RESULT 169
AAT56320
ID   AAT56320 standard; RNA; 15 BP.
```

```
XX
AC   AAT56320;
XX
DT   25-MAR-2003  (updated)
DT   14-MAY-1997  (first entry)
XX
DE   Mouse TNF-a hammerhead ribozyme target sequence (nt position 1310).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   28.6%;  Pred. No. 2.2e+02;
  Matches    4;  Conservative    10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTAT 1051
              :|:::|::|:::|:
Db          1 UAUUUAUUAUUUAU 14


RESULT 170
AAT55811
ID   AAT55811 standard; RNA; 15 BP.
XX
AC   AAT55811;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1269).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
```

```
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   28.6%;  Pred. No. 2.2e+02;
  Matches    4;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTAT 1051
              :|:::|::|:::|:
Db          1 UAUUUAUUAUUUAU 14


RESULT 171
AAT55796
ID   AAT55796 standard; RNA; 15 BP.
XX
AC   AAT55796;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1258).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 242; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   28.6%;  Pred. No. 2.2e+02;
  Matches    4;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTAT 1051
              :|:::|::|:::|:
Db          1 UAUUUAUUAUUUAU 14


RESULT 172
```

```
ABT34305
ID   ABT34305 standard; DNA; 16 BP.
XX
AC   ABT34305;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Hypocretin receptor 1 PCR primer SEQ ID No 91.
XX
KW   Eating disorder; polymorphism; dataset; allele; HGBASE identification;
KW   serotonin receptor 1D; delta-opioid receptor; dopamine receptor D2;
KW   anorexia nervosa; bulimia nervosa; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   WO2003012143-A1.
XX
PD   13-FEB-2003.
XX
PF   16-JUL-2002; 2002WO-US22555.
XX
PR   16-JUL-2001; 2001US-305153P.
PR   20-JUL-2001; 2001US-306440P.
PR   13-NOV-2001; 2001US-331285P.
PR   19-DEC-2001; 2001US-340843P.
PR   19-DEC-2001; 2001US-340844P.
XX
PA   (PRIC-) PRICE FOUND LTD.
XX
PI   Bergen AW,  Yeager M;
XX
DR   WPI; 2003-268122/26.
XX
PT   New nucleic acid molecule having polymorphisms in the serotonin
PT   receptor 1D, delta-opioid receptor, or dopamine receptor D2, useful in
PT   diagnostic and prognostic assays for eating disorders, such as anorexia
PT   and bulimia nervosa  -
XX
PS   Example 3; Page 61; 149pp; English.
XX
CC   The invention relates to a novel isolated nucleic acid molecule
CC   comprising a variant gene associated with an eating disorder and selected
CC   from any of 119 polymorphisms with their corresponding genotyping in
CC   dataset, alleles and HGBASE identification, given in the specification.
CC   The novel nucleic acid molecule has polymorphisms in the serotonin
CC   receptor 1D, delta-opioid receptor, or dopamine receptor D2, which is
CC   useful in diagnostic and prognostic assays for eating disorders, in
CC   particular anorexia nervosa and bulimia nervosa. This polynucleotide
CC   sequence represents a hypocretin receptor 1 PCR primer of the invention.
XX
SQ   Sequence 16 BP; 3 A; 6 C; 3 G; 4 T; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 2.3e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        877 CCACAAGTCCTTGT 890
              ||||||||||||||
Db          2 CCACAAGTCCTTGT 15


RESULT 173
AAV97934
ID   AAV97934 standard; RNA; 17 BP.
XX
AC   AAV97934;
XX
DT   17-MAR-1999  (first entry)
XX
DE   Human EGF-R target sequence nucleotide position 5117.
XX
KW   Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW   hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW   cancer; genetic drift; detection; mutation; ss.
XX
OS   Homo sapiens.
XX
PN   WO9833893-A2.
XX
PD   06-AUG-1998.
XX
PF   14-JAN-1998;   98WO-US00730.
XX
PR   04-DEC-1997;   97US-0985162.
PR   31-JAN-1997;   97US-0036476.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (UYAS-) UNIV ASTON.
XX
PI   Akhtar S,  Fell P,  McSwiggen JA;
XX
DR   WPI; 1998-437449/37.
XX
PT   Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT   growth factor receptor, useful for inhibiting cell proliferation and
PT   for treating cancers
XX
PS   Claim 5; Page 82; 109pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules (NAMs)
CC   which specifically cleave RNA derived from an epidermal growth factor
CC   receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC   represent specifically claimed target sequence from human EGF-R. AAV98044
CC   to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and
CC   hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC   cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC   expression levels e.g. to inhibit cell proliferation in the prevention or
CC   treatment of cancers. The NAMs can also be used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of EGF-R RNA in a cell.
XX
SQ   Sequence 17 BP; 9 A; 1 C; 2 G; 5 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   78.6%;  Pred. No. 2.5e+02;
  Matches   11;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1599 AGTAAATATGAAAC 1612
              ||:|||:|:|||||
Db          2 AGUAAAUAUGAAAC 15


RESULT 174
AAA22807/c
ID   AAA22807 standard; RNA; 17 BP.
XX
AC   AAA22807;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6033.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
```

```
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 243; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 0 A; 0 C; 3 G; 14 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAA 1220
              ||||||||||||||
Db         17 AAACAAACAAACAA 4


RESULT 175
AAA22808/c
ID   AAA22808 standard; RNA; 17 BP.
XX
AC   AAA22808;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6034.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 243; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 0 A; 0 C; 4 G; 13 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAA 1220
              ||||||||||||||
Db         14 AAACAAACAAACAA 1


RESULT 176
AAA22809/c
ID   AAA22809 standard; RNA; 17 BP.
XX
AC   AAA22809;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6035.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
```

```
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 243; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 0 A; 0 C; 4 G; 13 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAA 1220
              ||||||||||||||
Db         17 AAACAAACAAACAA 4


RESULT 177
AAA22810/c
ID   AAA22810 standard; RNA; 17 BP.
XX
AC   AAA22810;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6036.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 243; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 1 A; 0 C; 4 G; 12 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAA 1220
              ||||||||||||||
Db         14 AAACAAACAAACAA 1


RESULT 178
AAA36306
ID   AAA36306 standard; DNA; 17 BP.
XX
```

```
AC   AAA36306;
XX
DT   26-JUL-2000  (first entry)
XX
DE   Human genomic SNP allele specific oligonucleotide SEQ ID NO:372.
XX
KW   Human; single nucleotide polymorphism; SNP; genotyping; DNA analysis;
KW   allele specific oligonucleotide; ASO; reduced complexity genome; RCG;
KW   genomic classification; identification; DNA fingerprinting;
KW   tumour characterisation; hybridisation; ss.
XX
OS   Homo sapiens.
XX
PN   WO200018960-A2.
XX
PD   06-APR-2000.
XX
PF   24-SEP-1999;   99WO-US22283.
XX
PR   25-SEP-1998;   98US-0101757.
XX
PA   (MASI ) MASSACHUSETTS INST TECHNOLOGY.
XX
PI   Landers JE,  Jordan B,  Housman DE,  Charest A;
XX
DR   WPI; 2000-293181/25.
XX
PT   Detection of single nucleotide polymorphisms in genomes by preparation
PT   and analysis of reduced complexity genomes, useful for genotyping,
PT   fingerprinting and determining allele frequency of SNPs  -
XX
PS   Disclosure; Page 64; 111pp; English.
XX
CC   A method has been developed for detecting the presence or absence of a
CC   single nucleotide polymorphism (SNP) allele in a genomic sample. The
CC   method comprises preparing a reduced complexity genome (RCG) from the
CC   genomic sample and analysing the RCG for the presence or absence of a
CC   SNP allele. The method can be used to characterise a tumour, to generate
CC   a genomic pattern for an individual genome or to generate a genomic
CC   classification code for a genome. The method can be used to assess
CC   whether a subject is at risk for developing a disease or to identify a
CC   set of SNP alleles associated with a disease. The method can also be
CC   used to perform linkage analysis. AAA35944 to AAA35947 represent
CC   sequences used in the exemplification of the present invention. AAA35948
CC   to AAA36632 represent nucleotide sequences containing SNPs.
XX
SQ   Sequence 17 BP; 12 A; 5 C; 0 G; 0 U; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAA 1220
              ||||||||||||||
Db          1 AAACAAACAAACAA 14


RESULT 179
ABN07607
ID   ABN07607 standard; DNA; 17 BP.
XX
AC   ABN07607;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7599.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US16981.
XX
PR   26-MAY-2000; 2000US-207456P.
PR   21-SEP-2000; 2000US-234687P.
PR   27-SEP-2000; 2000US-236359P.
PR   04-OCT-2000; 2000GB-0024263.
PR   30-JAN-2001; 2001WO-US00661.
PR   30-JAN-2001; 2001WO-US00662.
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00666.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   30-JAN-2001; 2001WO-US00670.
PR   05-FEB-2001; 2001US-266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon MB;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1
PT   proteins, or as specific biomolecule capture probes for
PT   surface-enhanced laser desorption ionization, comprises human
PT   myosin-like protein hGDMLP-1 -
XX
PS   Disclosure; SEQ ID 7599; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of
CC   hGDMLP-1 can be used in gene therapy and vaccine production. The
CC   hGDMLP-1 nucleic acids can be used as probes to detect, characterise
CC   and quantify hGDMLP-1 nucleic acids in samples, as amplification
CC   substrates, to provide initial substrates for the recombinant engineering
CC   of hGDMLP-1 protein variants having desired phenotypic improvements, and
CC   for expressing the proteins. The hGDMLP-1 proteins or polypeptides may
CC   be used as immunogens to raise antibodies that specifically recognise
CC   hGDMLP-1 proteins, as standards in assays used to determine the
CC   concentration and/or amount specifically of hGDMLP proteins, as specific
CC   biomolecule capture probes for surface-enhanced laser desorption
CC   ionisation, as therapeutic supplement in patients having specific
CC   deficiency in hGDMLP-1 production, and in vaccines or for replacement
CC   therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for
CC   diagnosing a disorder associated with the expression of hGDMLP-1, in
CC   particular heart and skeletal muscle disorders. hGDMLP-1 is localised to
CC   chromosome 22. The present sequence represents an oligomer used in the
CC   screening of the hGDMLP-1 sequence in the exemplification of the present
CC   invention.
CC   N.B. The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence.
XX
SQ   Sequence 17 BP; 4 A; 7 C; 2 G; 4 T; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        939 GCCACCATCTTACC 952
              ||||||||||||||
Db          4 GCCACCATCTTACC 17


RESULT 180
ABN07611
ID   ABN07611 standard; DNA; 17 BP.
```

XX
AC ABN07611;
XX
DT 29-MAY-2002 (first entry)
XX
DE Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7603.
XX
KW Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW skeletal muscle disorder; amplicon; screening; ss.
XX
OS Homo sapiens.
XX
PN WO200192524-A2.
XX
PD 06-DEC-2001.
XX
PF 25-MAY-2001; 2001WO-US16981.
XX
PR 26-MAY-2000; 2000US-207456P.
PR 21-SEP-2000; 2000US-234687P.
PR 27-SEP-2000; 2000US-236359P.
PR 04-OCT-2000; 2000GB-0024263.
PR 30-JAN-2001; 2001WO-US00661.
PR 30-JAN-2001; 2001WO-US00662.
PR 30-JAN-2001; 2001WO-US00663.
PR 30-JAN-2001; 2001WO-US00664.
PR 30-JAN-2001; 2001WO-US00665.
PR 30-JAN-2001; 2001WO-US00666.
PR 30-JAN-2001; 2001WO-US00667.
PR 30-JAN-2001; 2001WO-US00668.
PR 30-JAN-2001; 2001WO-US00669.
PR 30-JAN-2001; 2001WO-US00670.
PR 05-FEB-2001; 2001US-266860P.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Gu Y, Ji Y, Penn SG, Hanzel DK, Rank DR, Chen W, Shannon ME;
XX
DR WPI; 2002-179446/23.
XX
PT New polypeptide, for raising antibodies that recognize hGDMLP-1
PT proteins, or as specific biomolecule capture probes for
PT surface-enhanced laser desorption ionization, comprises human
PT myosin-like protein hGDMLP-1 -
XX
PS Disclosure; SEQ ID 7603; 214pp; English.
XX
CC The present invention describes a human genome-derived myosin-like
CC protein 1 (hGDMLP-1). The protein and polynucleotide sequences of
CC hGDMLP-1 can be used in gene therapy and vaccine production. The
CC hGDMLP-1 nucleic acids can be used as probes to detect, characterise
CC and quantify hGDMLP-1 nucleic acids in samples, as amplification
CC substrates, to provide initial substrates for the recombinant engineering
CC of hGDMLP-1 protein variants having desired phenotypic improvements, and
CC for expressing the proteins. The hGDMLP-1 proteins or polypeptides may
CC be used as immunogens to raise antibodies that specifically recognise
CC hGDMLP-1 proteins, as standards in assays used to determine the
CC concentration and/or amount specifically of hGDMLP proteins, as specific
CC biomolecule capture probes for surface-enhanced laser desorption
CC ionisation, as therapeutic supplement in patients having specific
CC deficiency in hGDMLP-1 production, and in vaccines or for replacement
CC therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for
CC diagnosing a disorder associated with the expression of hGDMLP-1, in
CC particular heart and skeletal muscle disorders. hGDMLP-1 is localised to
CC chromosome 22. The present sequence represents an oligomer used in the
CC screening of the hGDMLP-1 sequence in the exemplification of the present
CC invention.
CC N.B. The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequence.
XX
SQ Sequence 17 BP; 3 A; 7 C; 2 G; 5 T; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 2.5e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 940 CCACCATCTTACCT 953
||||||||||||||
Db 1 CCACCATCTTACCT 14

RESULT 181
AAF24944/c
ID AAF24944 standard; DNA; 18 BP.
XX
AC AAF24944;
XX
DT 30-APR-2001 (first entry)
XX
DE PCR primer used to amplify the human krit1 gene exon 4.
XX
KW Human; krit1 gene; Ras gene; cavernoma; gene therapy; angiogenesis;
KW vascular malformation; dysplasia; angioma; tumour; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN FR2795732-A1.
XX
PD 05-JAN-2001.
XX
PF 01-JUL-1999; 99FR-0008504.
XX
PR 01-JUL-1999; 99FR-0008504.
XX
PA (INRM) INSERM INST NAT SANTE & RECH MEDICALE.
XX
PI Tournier LE, Laberge Le Couteux S, Labauge P;
XX
DR WPI; 2001-149774/16.
XX
PT New primers for amplifying regions of the KritI gene, useful for
PT diagnosis, particularly by detecting mutations, cavernomas, and gene
PT therapy with this gene -
XX
PS Claim 1; Page 16; 39pp; French.
XX
CC PCR primers AAF24944-45 were used to amplify exon 4 of the human krit1
CC gene. Krit1 is a member of the Ras gene family. Mutations in the krit1
CC gene are responsible for certain vascular abnormalities. The primers are
CC used to detect mutations in the KritI gene, specifically those mutations
CC that are associated with presence of cavernomas, for diagnosis. The
CC krit1 gene, or its derivatives, are useful in gene therapy for
CC controlling or inhibiting angiogenesis, e.g. in cases of vascular
CC malformation or dysplasia, or angioma, and the KritI protein, optionally
CC modified, may be used similarly, particularly for treatment of tumours.
XX
SQ Sequence 18 BP; 0 A; 0 C; 5 G; 13 T; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 2.6e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 616 ACAAAAAACAACAA 629
||||||||||||||
Db 15 ACAAAAAACAACAA 2

RESULT 182
AAQ82529/c
ID AAQ82529 standard; DNA; 20 BP.
XX
AC AAQ82529;
XX
DT 25-MAR-2003 (updated)

DT 13-SEP-1995 (first entry)
XX
DE Chromosome 11 (locus CALCA) STS primer CALCA-A.
XX
KW sequence sampled mapping; genomic analysis; complex genome mapping;
KW cosmid library; chromosome 11; sequence tagged site; STS analysis; ss.
XX
OS Synthetic.
XX
PN WO9429486-A1.
XX
PD 22-DEC-1994.
XX
PF 15-JUN-1994; 94WO-US06810.
XX
PR 15-JUN-1993; 93US-0078471.
PR 07-SEP-1993; 93US-0117952.
XX
PA (SALK) SALK INST BIOLOGICAL STUDIES.
XX
PI Evans GA, Smith MW;
XX
DR WPI; 1995-036508/05.
XX
PT Sequencing complex genomes, present as fragments in a cosmid
PT library - by sequencing end-specific nucleotides of each clone
PT then correlating with spatial relationship of cosmid, esp. for
PT mammalian chromosomes.
XX
PS Example 4; Page 86; 128pp; English.
XX
CC Sequences were determined from the ends of chromosome 11-specific
CC cosmids by automated sequencing without intermediate subcloning.
CC A sample of 371 DNA sequence fragments were determined and of
CC these, 277 were suitable for STS primer prediction by computer
CC analysis (using the "Primer" program available from E.Lander, MIT).
CC The STSs and cosmids were mapped by in situ hybridisation, somatic
CC cell hybrid analysis or both. Using this method, 370 STSs specific
CC for human chromosome 11 were generated and most of them were
CC regionally mapped. This procedure illustrates a novel method for
CC sequencing complex genomes, designated "sequence sampled mapping".
CC The sequence sampled mapping method is useful for the completion of
CC high density sequence-based maps, and ultimately, for the complete
CC sequencing of genomic DNA directly from cosmid clones.
CC See AAQ82001-Q82706 for STS primers. (Also see AAQ91325-58).
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 889 GTTCCACTGTGCCT 902
||||||||||||||
Db 17 GTTCCACTGTGCCT 4

RESULT 183
AAX96450
ID AAX96450 standard; DNA; 20 BP.
XX
AC AAX96450;
XX
DT 13-SEP-1999 (first entry)
XX
DE PCR primer used to amplify an ORF of Chlamydia pneumoniae.
XX
KW Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
KW vaccine; neutralising epitope; PCR primer; ss.
XX
OS Synthetic.
XX
OS Chlamydia pneumoniae.
XX
PN WO9927105-A2.
XX
PD 03-JUN-1999.
XX
PF 20-NOV-1998; 98WO-IB01890.
XX
PR 04-NOV-1998; 98US-0107078.
PR 21-NOV-1997; 97FR-0014673.
XX
PA (GEST) GENSET.
XX
PI Griffais R;
XX
DR WPI; 1999-357842/30.
XX
PT Genome sequence of Chlamydia pneumoniae
XX
PS Page 1827; Disclosure; 1912pp; English.
XX
CC AAX91991-X97517 represent PCR primers used to amplify open reading
CC frames and other nucleic acid sequences from the genome of
CC Chlamydia pneumoniae (see AAX91990). C. pneumoniae causes respiratory
CC disease such as pneumonia and bronchitis and is thought to be a
CC contributing factor in heart disease, sarcoidosis, sinusitis, purulent
CC otitis media, erythema nodosum or pharyngitis. The polypeptides encoded
CC by the open reading frames of the C. pneumoniae genome (see AAY34584-
CC AAY35879) can be used in immunogenic compositions as vaccines. Vectors
CC containing C. pneumoniae nucleotides sequences can also be used as
CC immunogenic compositions, especially where the vector directs the
CC expression of a neutralising epitope of C. pneumoniae.
XX
SQ Sequence 20 BP; 4 A; 7 C; 3 G; 6 T; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 644 TAAGGATTTTCCTA 657
||||||||||||||
Db 7 TAAGGATTTTCCTA 20

RESULT 184
AAZ98592
ID AAZ98592 standard; DNA; 20 BP.
XX
AC AAZ98592;
XX
DT 19-JUN-2000 (first entry)
XX
DE Human MAPK kinase 6 inhibiting antisense oligo ISIS# 101530.
XX
KW Mitogen-activated protein kinase; MAPK; MAPK kinase 6; antisense;
KW sandwich assay; human; ss.
XX
OS Homo sapiens.
XX
PN US6033910-A.
XX
PD 07-MAR-2000.
XX
PF 19-JUL-1999; 99US-0357073.
XX
PR 19-JUL-1999; 99US-0357073.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Cowsert LM;
XX
DR WPI; 2000-269479/23.
XX

PT Novel antisense oligonucleotides used for inhibition of
PT Mitogen-activated protein kinase kinase 6 expression -
XX
PS Example 15; Column 41; 33pp; English.
XX
CC The invention provides antisense oligonucleotides which are targeted to
CC a nucleic acid encoding a mitogen-activated protein kinase (MAPK) kinase
CC 6. The antisense oligonucleotides are used to inhibit MAPK kinase 6
CC expression, and so are used to treat diseases mediated by MAPK kinase 6
CC expression. They may also be used to detect MAPK kinase 6, e.g. in
CC sandwich assays. Sequences AAZ98558-597 represent antisense oligos
CC inhibiting human MAPK kinase 6 mRNA.
XX
SQ Sequence 20 BP; 15 A; 3 C; 2 G; 0 U; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1207 AAACAAACAAACAA 1220
||||||||||||||
Db 7 AAACAAACAAACAA 20

RESULT 185
AAS13722/c
ID AAS13722 standard; DNA; 20 BP.
XX
AC AAS13722;
XX
DT 08-MAY-2002 (first entry)
XX
DE Simple sequence repeat, SSR, #19.
XX
KW Simple sequence repeat; plant; ds; SSR; ryegrass; fescue; tandem repeat;
KW cereal profiling; grass profiling; seed batch purity testing.
XX
OS Poeae.
XX
PN NZ509193-A.
XX
PD 25-MAY-2001.
XX
PF 03-JAN-2001; 2001NZ-0509193.
XX
PR 24-DEC-1999; 99AU-0004906.
PR 04-MAY-2000; 2000AU-0007310.
XX
PA (SAUS-) STATE SOUTH AUSTRALIA SOUTH AUSTRALIAN R.
PA (UYSC-) UNIV SOUTHERN CROSS.
PA (VICT-) STATE VICTORIA DEPT NATURAL RES & ENVIRO.
PA (UYAD-) UNIV ADELAIDE.
PA (ITMA-) INT MAIZE & WHEAT IMPROVEMENT CENT.
XX
PI Forster JW, Jones ES;
XX
DR WPI; 2001-512563/56.
XX
PT New simple sequence repeats having 2 or more tandemly repeated
PT nucleotide core elements isolated from ryegrass and fescue, useful for
PT selecting of genes in grass or cereal breeding or profiling grass or
PT cereal species varieties -
XX
PS Claim 6; Page 51; 72pp; English.
XX
CC The invention relates to a substantially purified or isolated nucleic
CC acid (I) from ryegrass or fescue species including a simple sequence
CC repeat (SSR), having 2 or more tandemly repeated nucleotide core elements
CC 2-6 nucleotides in length. Also included are a nucleic acid primer
CC suitable for amplifying an SSR, identifying (M1) an SSR by preparing a
CC library of ryegrass or fescue genomic DNA enriched for SSRs and
CC identifying clones in the library containing SSRs, a library of ryegrass
CC or fescue genomic DNA enriched for SSRs prepared by the M1, selecting for
CC a gene in grass or cereal breeding by identifying an SSR that is closely
CC associated with the gene such that the SSR and the gene are
CC preferentially co-inherited, and selecting for the SSR in the
CC breeding, a method for DNA profiling grass or cereal species varieties by
CC assessing variation between SSR varieties and testing the purity of grass
CC or cereal seed batches by assessing variation within seed batch of an
CC SSR. The SSRs may be used in the selection of genes in grass or cereal
CC breeding, for profiling grass or cereal species varieties, for testing
CC the purity of grass or cereal seed batches, and for DNA profiling to
CC establish the distinct identity, uniformity and/or stability of a
CC cultivar. The present sequence is a ryegrass or fescue SSR.
XX
SQ Sequence 20 BP; 0 A; 0 C; 5 G; 15 T; 0 other;

Query Match 1.1%; Score 14; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1207 AAACAAACAAACAA 1220
||||||||||||||
Db 20 AAACAAACAAACAA 7

RESULT 186
ABZ01980/c
ID ABZ01980 standard; DNA; 50 BP.
XX
AC ABZ01980;
XX
DT 09-JAN-2003 (first entry)
XX
DE Human leukocyte gene expression profiling probe SEQ ID NO 1971.
XX
KW T7; leukocyte; gene expression profiling; allograft rejection;
KW atherosclerosis; congestive heart failure; systemic lupus erythematosus;
KW rheumatoid arthritis; osteoarthritis; cytomegalovirus; infection;
KW probe; ss.
XX
OS Homo sapiens.
XX
PN WO200257414-A2.
XX
PD 25-JUL-2002.
XX
PF 22-OCT-2001; 2001WO-US47856.
XX
PR 20-OCT-2000; 2000US-241994P.
PR 08-JUN-2001; 2001US-296764P.
XX
PA (BIOC-) BIOCARDIA INC.
XX
PI Wohlgemuth J, Fry K, Matcuk G, Altman P, Prentice J, Phillips J;
PI Ly N, Woodward R, Quertermous T, Johnson F;
XX
DR WPI; 2002-636525/68.
XX
PT New system for leukocyte expression profiling, diagnosing a disease, or
PT monitoring (the rate of) progression of a disease, e.g. atherosclerosis
PT or congestive heart failure, comprises diagnostic oligonucleotides -
XX
PS Claim 1; Page 389; 2038pp; English.
XX
CC The invention relates to a system for detecting gene expression, which
CC comprises one or two isolated DNA molecules that detect expression of a
CC gene, where the gene corresponds to any of 8143 oligonucleotides
CC (ABZ00010-ABZ08152) each having 50 base pairs (bp). The system is useful
CC for leukocyte expression profiling. It is particularly useful for
CC diagnosing a disease, monitoring (rate of) progression of a disease,
CC predicting therapeutic outcome, determining prognosis for a patient,
CC predicting disease complications in an individual or monitoring response
CC to treatment in an individual. The diseases include cardiac allograft
CC rejection, kidney allograft rejection, liver allograft rejection,
CC atherosclerosis, congestive heart failure, systemic lupus erythematosus,

```
CC   rheumatoid arthritis, osteoarthritis or cytomegalovirus infection.
XX
SQ   Sequence 50 BP; 19 A; 10 C; 7 G; 14 T; 0 other;

  Query Match             1.1%;  Score 14;  DB 1;  Length 50;
  Best Local Similarity   60.5%;  Pred. No. 4.6e+02;
  Matches   23;  Conservative    0;  Mismatches   15;  Indels    0;  Gaps    0;

Qy       1079 GCAAGAATTTGGAAAAATAGAAGATGAATCATTGATTG 1116
              ||||||| ||   || || ||   || |   |||  ||
Db         42 GCAAGAAATTACTAATATTGACTGTGGAGTTTTGGCTG 5


RESULT 187
AAT81506/c
ID   AAT81506 standard; RNA; 17 BP.
XX
AC   AAT81506;
XX
DT   14-DEC-1997  (first entry)
XX
DE   Human c-myb hammerhead ribozyme target sequence (nt. position 2713).
XX
KW   Enzymatic nucleic acid; hammerhead; ribozyme; cleavage; human;
KW   smooth muscle cell; hyperproliferation; restenosis; cancer;
KW   c-myb; coronary angioplasty; ss.
XX
OS   Homo sapiens.
XX
PN   WO9531541-A2.
XX
PD   23-NOV-1995.
XX
PF   18-MAY-1995;   95WO-US06368.
XX
PR   13-JAN-1995;   95US-0373124.
PR   18-MAY-1994;   94US-0245466.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Draper K,  Jarvis T,  McSwiggen J,  Stinchcomb DT;
XX
DR   WPI; 1996-010927/01.
XX
PT   New enzymatic nucleic acid molecules - which cleave RNA produced by
PT   e.g. c-myb, for treating restenosis or cancer
XX
PS   Claim 1; Page 77; 128pp; English.
XX
CC   The present sequence represents the preferred target sequence for an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the human c-myb sequence at the base position indicated in the
CC   descriptor line. The c-myb sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm, and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified.  Ribozymes were synthesised and
CC   their activities optimised by either varying the length of the binding
CC   arms or by modification to prevent degradation by nucleases.
CC   The ribozymes cleave the c-myb sequence and can be used to prevent
CC   smooth muscle cell hyperproliferation in restenosis, especially after
CC   coronary angioplasty, and in cancers.
XX
SQ   Sequence 17 BP; 9 A; 0 C; 0 G; 8 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1615 TTAAAATATAATTTGTT 1631
              | ||||||||||||  ||
Db         17 TAAAAATATAATTTTTT 1


RESULT 188
AAV96639
ID   AAV96639 standard; RNA; 17 BP.
XX
AC   AAV96639;
XX
DT   01-MAR-1999  (first entry)
XX
DE   Potato citrate synthase target sequence position 1333.
XX
KW   Solanidine; glucosyltransferase; potato; citrate synthase; target;
KW   hammerhead ribozyme; hairpin ribozyme; alkaloid biosynthesis;
KW   flower formation; cleavage; solanaceous plant; ss.
XX
OS   Solanum tuberosum.
XX
PN   WO9832843-A2.
XX
PD   30-JUL-1998.
XX
PF   14-JAN-1998;   98WO-US00738.
XX
PR   24-NOV-1997;   97US-0979416.
PR   28-JAN-1997;   97US-0036545.
PR   28-JAN-1997;   97US-0036599.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   McSwiggen JA,  Zwick MG;
XX
DR   WPI; 1998-427939/36.
XX
PT   New enzymatic nucleic acid(s) - useful for, e.g. reducing alkaloid
PT   biosynthesis or regulating flowering
XX
PS   Claim 53; Page 56; 79pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA-cleaving activity (e.g. ribozymes) which are capable of modulating
CC   the expression of plant genes: (i) involved in biosynthesis of
CC   alkaloids; or (ii) involved in flower formation. AAV95982 to AAV96334,
CC   and AAV96335 to AAV96354 represent potato solanidine glucosyltransferase
CC   hammerhead and hairpin ribozymes, respectively. AAV95629 to AAV95981,
CC   and AAV96355 to AAV96734 represent potato solanidine glucosyltransferase
CC   target sequences. AAV96773 to AAV97170, and AAV97171 to AAV97195
CC   represent potato citrate synthase hammerhead and hairpin ribozymes,
CC   respectively. AAV96735 to AAV96772, and AAV97196 to AAV97220 represent
CC   potato citrate synthase target sequences. Ribozymes of the present
CC   invention can be used to inhibit the synthesis of toxic alkaloids in
CC   solanaceous plants, particularly potato but also tomato, pepper,
CC   aubergine and ditura or to inhibit flowering in potato, lettuce, spinach,
CC   cabbage, brussel sprouts, arugula, kale, collards, chard, beet, turnip,
CC   sweet potato and turf grass. Also the ribozymes can be used for RNA
CC   manipulation in the same way that restriction endonucleases are for DNA,
CC   as well as to examine  genetic drift and mutations in plants and to
CC   detect specific RNA. The  ribozymes can be targeted to specific genes or
CC   to consensus sequences  within a family of related genes, and being
CC   catalytic need to be  present at only very low concentrations.
XX
SQ   Sequence 17 BP; 6 A; 1 C; 3 G; 7 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   47.1%;  Pred. No. 2.7e+02;
  Matches    8;  Conservative    7;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1282 ATTATTGTTTATCTGAA 1298
              |::|: |:::| |:|||
Db          1 AUUAUGGUUUAACUGAA 17


RESULT 189
AAA19037/c
ID   AAA19037 standard; RNA; 17 BP.
```

XX
AC AAA19037;
XX
DT 19-JUN-2000 (first entry)
XX
DE Human TIE-2 substrate sequence SEQ ID NO:2263.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 56; Page 132; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 4 A; 1 C; 2 G; 10 U; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 2.7e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1590 AAATATAAAAGTAAATA 1606
||||||| |||| ||||
Db 17 AAATATACAAGTCAATA 1

RESULT 190
AAA21468/c
ID AAA21468 standard; RNA; 17 BP.
XX
AC AAA21468;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:4694.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 55; Page 210; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 9 A; 0 C; 0 G; 8 U; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 2.7e+02;

```
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1133 TTATAGTAAATTTATTT 1149
              ||||| ||||||||||
Db         17 TTATAAAAAATTTATTT 1


RESULT 191
AAA21475/c
ID   AAA21475 standard; RNA; 17 BP.
XX
AC   AAA21475;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4701.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 55; Page 210; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 5 A; 1 C; 3 G; 8 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        539 AAACAATGAATAGTTTT 555
              ||||||||| | ||||
Db         17 AAACAATGAACACTTTT 1


RESULT 192
AAA22904/c
ID   AAA22904 standard; RNA; 17 BP.
XX
AC   AAA22904;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6130.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 249; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
```

CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 12 A; 0 C; 0 G; 5 U; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 2.7e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1045 TATTTATGTATTTATTT 1061
|| |||| |||||||||
Db 17 TAATTATTTATTTATTT 1

RESULT 193
AAV91422/c
ID AAV91422 standard; RNA; 17 BP.
XX
AC AAV91422;
XX
DT 18-FEB-1999 (first entry)
XX
DE Human C-raf target site nucleotide position 2967.
XX
KW Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW target; substrate; catalyst; modulation; expression; Raf gene;
KW delivery; screening; identification; synthesis; deprotection;
KW purification; cancer; inflammation; psoriasis; non-hepatic ascites;
KW infection; genetic drift; restenosis; rheumatoid arthritis; ss.
XX
OS Homo sapiens.
XX
PN WO9850530-A2.
XX
PD 12-NOV-1998.
XX
PF 05-MAY-1998; 98WO-US09249.
XX
PR 19-DEC-1997; 97US-0068212.
PR 09-MAY-1997; 97US-0046059.
PR 09-JUN-1997; 97US-0049002.
PR 03-JUL-1997; 97US-0051718.
PR 22-AUG-1997; 97US-0056808.
PR 02-OCT-1997; 97US-0061321.
PR 02-OCT-1997; 97US-0061324.
PR 05-NOV-1997; 97US-0064866.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Beaudry A, Beigelman L, Bellon L, Burgin A, Jarvis T;
PI Karpeisky A, Kisich K, Matulic-Adamic J, McSwiggen JA;
PI Parry T, Reynolds M, Sweedler D, Thompson J, Workman CT;
XX
DR WPI; 1999-009494/01.
XX
PT Identifying new catalytic nucleic acid that modulates selected
PT processes - especially ribozymes that cleave Raf RNA for treating
PT cancer, restenosis, and also new ribozymes and modified nucleoside
PT triphosphates used as antiviral agents and synthons
XX
PS Claim 177; Page 154; 259pp; English.
XX
CC A method has been developed for the identification of a nucleic acid
CC capable of modulating a process in a biological system. The method
CC comprises: (a) introducing into the system a random library of nucleic
CC acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC in systems where modulation has occurred and/or determining the sequence
CC of at least part of the SBDs in such systems. Nucleic acid molecules
CC with endonuclease activity and catalytic activity, from the present
CC invention, are used to modulate gene expression in plant and mammalian
CC cells and to cleave target nucleic acid, particularly for treating
CC systemic diseases caused by specific RNA, e.g. cancer, inflammation,
CC psoriasis, non-hepatic ascites and infection. They may also be used to
CC detect genetic drift and mutations in diseased cells and to determine
CC c-raf RNA. Specifically NACs with RNA-cleaving activity that modulate
CC expression of the Raf gene, are used to treat cancer, restenosis,
CC psoriasis or rheumatoid arthritis, or generally any condition associated
CC with the level of c-raf. Introduction of sugar/phosphate modifications
CC increases stability against nuclease and activity. AAV90922 to AAV93877
CC represent NACs that can be used in the method, specifically for
CC modulating the expression of a Raf gene.
XX
SQ Sequence 17 BP; 12 A; 0 C; 0 G; 5 U; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 2.7e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1137 AGTAAATTTATTTTATT 1153
| | ||||||||||||||||
Db 17 ATTTAATTTATTTTATT 1

RESULT 194
AAF02426/c
ID AAF02426 standard; DNA; 17 BP.
XX
AC AAF02426;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #721.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 37; Page 72; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 4 A; 0 C; 3 G; 10 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 2.7e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1204 ATTAAACAAACAAACAA 1220
              |||| ||| ||||||||
Db         17 ATTATACATACAAACAA 1
```

RESULT 195
AAA25364
ID AAA25364 standard; DNA; 17 BP.
XX
AC AAA25364;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1862.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target
PT sequences, used to treat cancer -
XX
PS Claim 77; Page 77; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any
CC catalytic nucleic acid (A') that modulates expression of the oestrogen
CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 6 A; 1 C; 3 G; 7 T; 0 other;

```
  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1538 AAGATGTTTTTATGTGC 1554
              || | |||||||||||||
Db          1 AAAAAGTTTTTATGTGC 17
```

RESULT 196
AAA25367
ID AAA25367 standard; DNA; 17 BP.
XX
AC AAA25367;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1865.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target
PT sequences, used to treat cancer -
XX
PS Claim 77; Page 77; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any
CC catalytic nucleic acid (A') that modulates expression of the oestrogen
CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 4 A; 2 C; 3 G; 8 T; 0 other;

```
  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1541 ATGTTTTTATGTGCTCT 1557
              | |||||||||||| ||
Db          1 AAGTTTTTATGTGCACT 17
```

```
RESULT 197
AAA25990/c
ID   AAA25990 standard; DNA; 17 BP.
XX
AC   AAA25990;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2488.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US08547.
XX
PR   20-APR-1998;   98US-0082404.
PR   23-JUN-1998;   98US-0103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 97; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
CC   receptor gene, are used to treat cancer (particularly of breast or
CC   endometrium), in vivo or by transforming cells ex vivo and implanting
CC   treated cells, or for other conditions associated with levels of
CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC   can also be used to correlate inhibition of gene expression with
CC   alterations in phenotype, particularly for identification of therapeutic
CC   targets, and as research reagents (for RNA, in the  same way that
CC   restriction endonucleases are used with DNA). The combination of
CC   modifications in (A) improves resistance to nucleases, binding affinity
CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC   their corresponding target sequences. AAA26219 to AAA26271 represent
CC   other ribozyme sequences and antisense oligonucleotides used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 2 G; 7 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1055 TTTATTTAAGCATCAAA 1071
              ||||||| | |||||||
Db         17 TTTATTTGAACATCAAA 1
```

```
RESULT 198
ABV80684/c
ID   ABV80684 standard; DNA; 17 BP.
XX
AC   ABV80684;
XX
DT   03-JAN-2003  (first entry)
XX
DE   Human HTPL scanning oligonucleotide SEQ ID 1930.
XX
KW   Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW   human testis expressed Patched like protein; testis; adrenal; liver;
KW   male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW   prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   EP1229046-A2.
XX
PD   07-AUG-2002.
XX
PF   28-JAN-2002; 2002EP-0001167.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   23-MAY-2001; 2001US-0864761.
PR   09-OCT-2001; 2001US-0327898.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhan J;
XX
DR   WPI; 2002-676582/73.
XX
PT   Novel isolated human testis expressed Patched like protein (HTPL),
PT   useful for identifying agonist and antagonist and specific binding
PT   partners, and for treating subjects having defects in HTPL -
XX
PS   Example 2; Page 316; 718pp; English.
XX
CC   The present invention relates to human testis expressed Patched like
CC   protein [HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC   has two isoforms, with a few single base pair differences between the
CC   two. One of the single base pair changes introduces a premature stop
CC   codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC   shares an overall structure organisation with the Patched protein. The
CC   shared structural features strongly imply that HTPL plays a role similar
CC   to that of Patched, and is a potential tumour suppressor. HTPL is
CC   important in regulating male germ cell development, and the HTPL gene was
CC   mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC   useful for diagnosing a disorder caused by mutation in HTPL, and in
CC   therapy and manufacture of a medicament for treatment or prevention of
CC   such disorder associated with decreased expression or activity of human
CC   HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC   foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC   skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC   clinically useful diagnostic markers and potenial therapeutic agents for
CC   male infertility and cancer. The present oligonucleotide was used in an
CC   example from the invention.
XX
SQ   Sequence 17 BP; 6 A; 3 C; 2 G; 6 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 2.7e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1456 TGTTTATTATGTACAAA 1472
              || |||| ||||||||||
Db         17 TGCTTATGATGTACAAA 1
```

```
RESULT 199
ABK57491
ID   ABK57491 standard; RNA; 17 BP.
XX
AC   ABK57491;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human CLCA1 gene enzymatic nucleic acid #1862.
XX
KW   Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW   antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW   chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW   oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW   acetylcysteine.
XX
OS   Homo sapiens.
XX
PN   WO200211674-A2.
XX
PD   14-FEB-2002.
XX
PF   09-AUG-2001; 2001WO-US24970.
XX
PR   09-AUG-2000; 2000US-224383P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (SYNT ) SYNTEX USA LLC.
PA   (THOM/) THOMPSON J.
XX
PI   Thompson J,  McSwiggen J,  McKenzie T,  Ayers D,  Szymkowski DE;
PI   Grupe A;
XX
DR   WPI; 2002-217145/27.
XX
PT   Enzymatic polynucleotide that down regulates expression of chloride
PT   channel calcium activated gene, useful for treating Chronic obstructive
PT   pulmonary disease (COPD), chronic bronchitis and asthma  -
XX
PS   Claim 4; Page 114; 152pp; English.
XX
CC   The invention relates to enzymatic nucleic acid molecules that down
CC   regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC   by cleaving RNA derived from the genes. The nucleic acid sequences are
CC   useful as pharmaceutical agents for treating conditions such as chronic
CC   obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC   fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC   that are related to or will respond to the levels of CLCA1 in a cell or
CC   tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC   hence, are useful for treatment of a patient having a condition
CC   associated with the level of CLCA1, where the invention further comprises
CC   the use of one or more therapies under conditions suitable for the
CC   treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC   antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC   nucleic acids of the invention are also used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of CLCA1 RNA in a cell. This sequence represents an
CC   enzymatic nucleic acid molecule of the invention.
XX
SQ   Sequence 17 BP; 6 A; 1 C; 1 G; 9 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   35.3%;  Pred. No. 2.7e+02;
  Matches    6;  Conservative    9;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1134 TATAGTAAATTTATTTT 1150
              :|:| :|||: :|:::::
Db          1 UAUACUAAAUGUAUUUU 17


RESULT 200
ABZ61055
ID   ABZ61055 standard; RNA; 17 BP.
XX
AC   ABZ61055;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human K-Ras DNAzyme substrate #1167.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US16840.
XX
PR   29-MAY-2001; 2001US-294140P.
PR   06-JUN-2001; 2001US-296249P.
PR   10-SEP-2001; 2001US-318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences  -
XX
PS   Claim 58; Page 107; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and
CC   anti-rheumatic activity. The nucleic acid molecules are useful for
CC   reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic
CC   acids are also useful for treating breast, ovarian, colorectal, lung,
CC   prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS.
CC   The sequences shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531,
CC   ABZ66520 - ABZ66524, ABZ66530 - ABZ66585 represent substrate/target
CC   sequences for the human ribozymes of the invention.
XX
SQ   Sequence 17 BP; 10 A; 2 C; 0 G; 5 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 2.7e+02;
  Matches   10;  Conservative    5;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1605 TATGAAACATTTAAAAT 1621
              :|: |||||:: |||||:
Db          1 UAUCAAACAUUAAAAAU 17


RESULT 201
AAT62126/c
ID   AAT62126 standard; DNA; 18 BP.
XX
AC   AAT62126;
XX
DT   10-JUN-1997  (first entry)
XX
DE   A. thaliana plant morphogenesis regulatory protein RT-PCR primer.
XX
KW   Plant; morphogenesis; regulation; short; stem; alteration;
KW   inflorescence; extraneous; gene; expression; transformation;
```

KW increase; control; form; length; primer; RT-PCR;
KW reverse transcriptase; polymerase chain reaction; ss.
XX
OS Synthetic.
XX
PN JP09056382-A.
XX
PD 04-MAR-1997.
XX
PF 24-AUG-1995; 95JP-0216187.
XX
PR 24-AUG-1995; 95JP-0216187.
XX
PA (MITS-) MITSUI GYOSAI SHOKUBUTSU BIO KENKYUSHO.
PA (CHIK-) ZH CHIKYU KANKYO SANGYO GIJITSU KENKYU.
XX
DR WPI; 1997-206629/19.
XX
PT DNA encoding plant morphogenesis regulatory protein - useful to
PT yield plants with short stems or altered inflorescence
XX
PS Example; Page 15; 17pp; Japanese.
XX
CC The present sequence is a RT-PCR primer for a mRNA encoding an
CC Arabidopsis thaliana plant morphogenesis regulatory protein (MRP),
CC which can be used to yield a plant with, e.g. short stems or
CC altered inflorescence. The MRP acts on a plant at a specific site
CC for a specific period, and can therefore be used to regulate
CC extraneous gene expression in a plant. The MRP's cDNA or genomic
CC DNA can be used to transform a plant to increase its MRP
CC expression, and therefore control the form (particularly stem
CC length) of the plant.
XX
SQ Sequence 18 BP; 7 A; 4 C; 3 G; 4 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 2.9e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1498 GACTGCATTTTTAAATA 1514
||||||.|||||| |||
Db 17 GACTGCGTTTTTAGATA 1

RESULT 202
AAX09459/c
ID AAX09459 standard; DNA; 18 BP.
XX
AC AAX09459;
XX
DT 24-MAR-1999 (first entry)
XX
DE Human biallelic polymorphic marker upstream primer #339.
XX
KW Polymorphism; biallelic; human; forensic; paternity testing; disease;
KW detection; phenotypic typing; characteristic; infection; hereditary;
KW autoimmune disease; cancer; inflammation; drug; therapy; medicament;
KW treatment; marker; primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9820165-A2.
XX
PD 14-MAY-1998.
XX
PF 05-NOV-1997; 97WO-US20313.
XX
PR 06-NOV-1996; 96US-0030455.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
XX
PI Hudson T, Lander ES, Wang D;
XX
DR WPI; 1998-286974/25.
XX
PT New isolated nucleic acid segments from the human genome - used for
PT determining polymorphic forms for use in e.g. forensics, paternity
PT testing or phenotypic typing for disease
XX
PS Claim 15; Page 93; 310pp; English.
XX
CC AAX09121-X10268 are allele-specific oligonucleotide primers used in the
CC isolation of various biallelic polymorphic markers found in the human
CC genome (represented in AAX10269-X12937). These primers can be used in a
CC method for determining polymorphic forms in an individual for use in
CC e.g. forensics, paternity testing or for phenotypic typing for diseases
CC such as agammaglobulinemia, diabetes insipidus, Lesch-Nyhan syndrome,
CC muscular dystrophy, Wiskott-Aldrich syndrome, Fabry's disease, familial
CC hypercholesterolemia, polycystic kidney disease, hereditary
CC spherocytosis, von Willebrand's disease, tuberous sclerosis, hereditary
CC haemorrhagic telangiectasia, familial colonic polyposis, Ehlers-Danlos
CC syndrome, osteogenesis imperfecta, acute intermittent porphyria,
CC autoimmune diseases, inflammation, cancer, diseases of the nervous
CC system, infection by pathogenic microorganisms, and characteristics such
CC as longevity, appearance (e.g. baldness, obesity), strength, speed,
CC endurance, fertility, and susceptibility or receptivity to particular
CC drugs or therapeutic treatments. The isolated polymorphic nucleic acid
CC segments can also be used to produce medicaments for the treatment or
CC prophylaxis of such diseases.
XX
SQ Sequence 18 BP; 6 A; 7 C; 4 G; 1 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 2.9e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 883 GTCCTTGTTCCACTGTG 899
|||||||.|.||||||||
Db 18 GTCCTTGGTGCACTGTG 2

RESULT 203
AAV17951
ID AAV17951 standard; DNA; 18 BP.
XX
AC AAV17951;
XX
DT 29-JUL-1998 (first entry)
XX
DE Chlamydia genus specific 16S rRNA sense primer.
XX
KW PCR; primer; amplification; endocervical; cloacal; sputum; 16S rRNA; ss.
XX
OS Synthetic.
OS Chlamydia sp.
XX
PN WO9810101-A1.
XX
PD 12-MAR-1998.
XX
PF 04-SEP-1997; 97WO-US15556.
XX
PR 05-SEP-1996; 96US-0025509.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Fields BF, Messmer TO, Skelton SK;
XX
DR WPI; 1998-193643/17.
XX
PT Detection and differentiation of Chlamydia species - C. pneumoniae,
PT C. psittaci, and C. trachomatis, using species-specific primers
PT complementary to the 16S rRNA gene
XX
PS Examples; Page 19; 32pp; English.

```
XX
CC   The invention provides a novel assay for detecting and differentiating
CC   Chlamydia pneumoniae, C. psittaci and C. trachomatis in the same sample
CC   at the same time without losing its sensitivity and specificity.  This
CC   is made possible by the usage of three 16S rRNA species specific primers
CC   pairs (AAV17953-V17956).  The optional first step subjects the test
CC   sample to a PCR reaction which uses the Chlamydia genus specific 16S rRNA
CC   sense and antisense (AAV17952) primers to amplify the generic 16S rRNA
CC   region common to the Chlamydia species.  The 436 bp PCR product is then
CC   subjected to another PCR reaction with the species specific primers.
CC   The type of Chlamydia species present or absent is indicated by the
CC   length of the PCR product.  A 412 bp product would indicate
CC   C. trachomatis presence, a 221 bp product would indicate C. pneumoniae
CC   and a 127 bp product would indicate C. psittaci.  These primers can also
CC   be used as species specific probes.  The assay can be used to equally
CC   identify e.g. C. trachomatis from endocervical swab samples, C. psittaci
CC   from cloacal swab samples from birds and C. pneumoniae from sputum
CC   samples.
XX
SQ   Sequence 18 BP; 6 A; 3 C; 5 G; 4 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 2.9e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1379 ACGGAATAATGAGTTAG 1395
              ||||||||||| || |
Db          1 ACGGAATAATGACTTCG 17


RESULT 204
AAZ75038
ID   AAZ75038 standard; DNA; 18 BP.
XX
AC   AAZ75038;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:9394.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB00822.
XX
PR   21-APR-1998;   98US-0082614.
PR   23-NOV-1998;   98US-0109732.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome  -
XX
PS   Claim 8; Page 2233; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the
CC   invention have a variety of uses: they can be used for high density
CC   mapping of the human genome, and in complex association studies and
CC   haplotyping studies which are useful in determining the genetic basis
CC   for disease states. Compositions and methods of the invention can also
CC   be useful for the identification of the targets for the development of
CC   pharmaceutical agents and diagnostic methods, as well as the
CC   characterisation of the differential efficacious responses to and side
CC   effects from pharmaceutical agents acting on a disease as well as other
CC   treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297
CC   and 3367, are not actually given a sequence in the Sequence Listing
CC   from the present invention.
XX
SQ   Sequence 18 BP; 0 A; 6 C; 3 G; 9 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 2.9e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        895 CTGTGCCTTGGTTTCTC 911
              ||||||||||  |||||
Db          2 CTGTGCCTTGTCTTCTC 18


RESULT 205
AAZ75043
ID   AAZ75043 standard; DNA; 18 BP.
XX
AC   AAZ75043;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker downstream amplification primer SEQ ID NO:9399.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB00822.
XX
PR   21-APR-1998;   98US-0082614.
PR   23-NOV-1998;   98US-0109732.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome  -
XX
PS   Claim 8; Page 2234; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the
CC   invention have a variety of uses: they can be used for high density
CC   mapping of the human genome, and in complex association studies and
CC   haplotyping studies which are useful in determining the genetic basis
CC   for disease states. Compositions and methods of the invention can also
CC   be useful for the identification of the targets for the development of
CC   pharmaceutical agents and diagnostic methods, as well as the
CC   characterisation of the differential efficacious responses to and side
CC   effects from pharmaceutical agents acting on a disease as well as other
```

```
CC   treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297
CC   and 3367, are not actually given a sequence in the Sequence Listing
CC   from the present invention.
XX
SQ   Sequence 18 BP; 0 A; 6 C; 3 G; 9 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 2.9e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        895 CTGTGCCTTGGTTTCTC 911
              ||||||||||  |||||
Db          2 CTGTGCCTTGTCTTCTC 18


RESULT 206
AAA86606/c
ID   AAA86606 standard; DNA; 18 BP.
XX
AC   AAA86606;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Cdc 2 kinase hammerhead ribozyme recognitoin site #37.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic;
KW   restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US28772.
XX
PR   04-DEC-1998;   98US-0110954.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1  -
XX
PS   Example 1; Page 18; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells.
CC   The ribozyme is resistant to endonuclease activity and hence is
CC   efficient in restenosis treatment.
XX
SQ   Sequence 18 BP; 7 A; 2 C; 2 G; 7 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 2.9e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1172 TTTATTAGATAAATTTC 1188
              ||||  ||||  |||||||
Db         18 TTTAATAGAGAAATTTC 2


RESULT 207
AAD17639/c
ID   AAD17639 standard; DNA; 18 BP.
XX
AC   AAD17639;
XX
DT   10-DEC-2001  (first entry)
XX
DE   Human GCPII gene exon-4 amplifying PCR primer #2.
XX
KW   Human; glutamate carboxypeptidase II; GCPII gene; dietary folate; FGCP;
KW   folypoly-gamma-glutamate carboxypeptidase; hyperhomocyteinaemia;
KW   cardiovascular disease; Alzheimer's disease; neural tube defect;
KW   congenital heart defect; colon cancer; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200168897-A2.
XX
PD   20-SEP-2001.
XX
PF   12-MAR-2001; 2001WO-US07880.
XX
PR   13-MAR-2000; 2000US-0188983.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Halsted CH,  Devlin AM;
XX
DR   WPI; 2001-582462/65.
XX
PT   Screening an individual for increased risk of low folate status,
PT   comprises detecting mutation in human glutamate carboxypeptidase II
PT   gene which affects ability of hydrolyzing terminal glutamates from
PT   dietary folates  -
XX
PS   Example 5; Page 26; 38pp; English.
XX
CC   The patent discloses methods for screening an individual for increased
CC   risk of low folate status. The method involves detecting a mutation
CC   in the human glutamate carboxypeptidase (GCP) II gene in a biological
CC   sample from said individual, wherein detection of the mutation is
CC   indicative of decreased ability of an individual to hydrolyse terminal
CC   glutamate residues from dietary folates by folypoly-gamma-glutamate
CC   carboxypeptidase (FGCP), a product of GCPII gene. The decreased ability
CC   is associated with low folate status. The method is useful for screening
CC   an individual for increased risk of low folate status and conditions
CC   associated with hyperhomocyteinaemia, cardiovascular disease, colon
CC   cancer and altered cognition in the elderly including Alzheimer's
CC   disease. Pregnant women with low folate status are at increased risk
CC   of bearing children with neural tube defects and congenital heart
CC   defects. The present DNA sequence is a PCR primer which is used for
CC   amplifying exon-4 of GCPII gene. This primer is designed from PSMA
CC   genomic sequence and is used for detecting a mutation in GCPII gene.
XX
SQ   Sequence 18 BP; 2 A; 2 C; 3 G; 11 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 18;
  Best Local Similarity   88.2%;  Pred. No. 2.9e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        767 GCATCACATAAAAATGA 783
              |||  ||  ||||||||||
Db         18 GCAACAAATAAAAATGA 2


RESULT 208
AAH61772/c
ID   AAH61772 standard; DNA; 18 BP.
XX
AC   AAH61772;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Cdc 2 kinase hammerhead ribozyme recognition site SEQ ID NO:4196.
```

XX
KW Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW sickle cell retinopathy; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200130362-A2.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US29500.
XX
PR 26-OCT-1999; 99US-0161532.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Robbins JM, Tritz R;
XX
DR WPI; 2001-300427/31.
XX
PT Treating proliferative skin or eye diseases and scarring, using
PT ribozymes that cleave RNA encoding cytokines involved in inflammation,
PT matrix metalloproteinases, growth factors and cell-cycle dependent
PT kinases -
XX
PS Disclosure; Page 378; 408pp; English.
XX
CC The present invention describes a method for treating a proliferative
CC skin or eye disease and scarring. The method involves administering a
CC ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC dependent kinase, growth factor or a reductase, or administering a
CC nucleic acid molecule (II) comprising a promoter operably linked to a
CC nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC ophthalmological, vulnerary, keratolytic and virucide activities, and
CC cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC in gene therapy. (I) and (II) are useful for treating proliferative
CC skin diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC also be used for treating proliferative eye diseases such as diabetic
CC retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC prematurity and retinal detachment, and for treating and preventing
CC scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC scar. AAH57577 to AAH62099 represent sequences used in the
CC exemplification of the present invention.
XX
SQ Sequence 18 BP; 7 A; 2 C; 2 G; 7 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 2.9e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1172 TTTATTAGATAAATTTC 1188
|||| |||| |||||||
Db 18 TTTAATAGAGAAATTTC 2

RESULT 209
ABZ10595
ID ABZ10595 standard; DNA; 18 BP.
XX
AC ABZ10595;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related oligonucleotide #735.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP03401.
XX
PR 26-MAR-2001; 2001US-278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T;
PI Pelet C, Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent
PT that distinguishes between methylated and non-methylated CpG
PT dinucleotides -
XX
PS Claim 15; Page 52; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related
CC DNA sequences. The nucleotide sequences from the present invention can
CC also be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables
CC a highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients.
XX
SQ Sequence 18 BP; 3 A; 1 C; 4 G; 10 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 18;
Best Local Similarity 88.2%; Pred. No. 2.9e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1286 TTGTTTATCTGAAATTT 1302
||||||| || |||||||
Db 1 TTGTTTTTCGGAAATTT 17

RESULT 210
AAQ47991
ID AAQ47991 standard; DNA; 19 BP.
XX

```
AC   AAQ47991;
XX
DT   25-MAR-2003  (updated)
DT   22-MAR-1994  (first entry)
XX
DE   PCR primer used in diagnosis of cystic fibrosis.
XX
KW   Cystic fibrosis; mutation; detection; primer; primer set;
KW   diagnosis; PCR; polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   WO9318177-A1.
XX
PD   16-SEP-1993.
XX
PF   11-MAR-1993;   93WO-US02259.
XX
PR   13-MAR-1992;   92US-0850703.
XX
PA   (CHIL-) CHILDRENS HOSPITAL PHILADELPHIA.
XX
PI   Fortina P,  Surrey S;
XX
DR   WPI; 1993-303489/38.
XX
PT   Diagnosis of cystic fibrous - using allele specific multiplex
PT   polymerase chain reaction system
XX
PS   Claim 6; Page 24; 38pp; English.
XX
CC   Two primer sets are used for detecting at least two mutations
CC   characteristic of cystic fibrosis, each set comprises two primer
CC   pairs: pair P1 comprises a primer specific for a normal allele and
CC   pair P2 comprises a primer specific for a mutant allele, each pair
CC   further comprises a common primer.  PCR is performed on genomic DNA
CC   using both primer sets simultaneously.  Detection of a PCR product
CC   of a primer specific for a mutant allele indicates the likelihood
CC   that the patient carries a mutation characteristic of the cystic
CC   fibrosis phenotype.  This primer is designated G551D-N and is the
CC   primer specific for the normal allele. (For primers used alongside
CC   this primer see AAQ47990 and AAQ47992).
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 19 BP; 4 A; 4 C; 4 G; 7 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1435 AATTTCTTGCTGGTTGA 1451
                || |||||||| |||||
Db          2 AAATTCTTGCTCGTTGA 18


RESULT 211
AAQ62249/c
ID   AAQ62249 standard; DNA; 19 BP.
XX
AC   AAQ62249;
XX
DT   25-MAR-2003  (updated)
DT   21-NOV-1994  (first entry)
XX
DE   Ligase Chain Reaction - specific probe for CF mutation detection.
XX
KW   Cystic Fibrosis; CF missense mutation; improved method;
KW   diagnosis; known mutation; Ligase chain reaction; G551D; ss.
XX
OS   Synthetic.
XX
PN   WO9408047-A1.
XX
PD   14-APR-1994.
XX
PF   07-SEP-1993;   93WO-US08359.
XX
PR   25-SEP-1992;   92US-0951495.
XX
PA   (ABBO ) ABBOTT LAB.
XX
PI   Beaudet AL,  Bouma SR,  Fang P,  Gordon J,  Hsieh W;
PI   Jou T;
XX
DR   WPI; 1994-135607/16.
XX
PT   Improved ligase chain reaction with high monovalent cation
PT   concns., mismatched probes and/or high initial mixing temps -
PT   used to detect small mutations in known DNA sequences, pref. for
PT   detecting cystic fibrosis mutations
XX
PS   Claim 24; Page 13; 64pp; English.
XX
CC   The Ligase Chain Reaction has been improved  to increase the
CC   "flexibility" or "dynamic range" of each probe set used in the
CC   detection of small mutations (single base deletions, insertions and
CC   changes, as well as multiple mutations where the size of the
CC   mutation is less than about 15% of the average probe length).
CC   Previously the determination of the genetic constituency of an
CC   individual has been time consuming. The invention comprises reacting
CC   probes and sample (suspected to contain the target nucleic acid)
CC   under hybridising conditions that have been modified - 1. the
CC   concentration of monovalent cation (Na+, K+, or NR3H+; R = H or
CC   lower alkyl) is 100-200mM; 2. a "hot start" (temp. range 50-95
CC   degree C) may be used; and 3. one of the downstream probes has a
CC   mismatch within 5 bases from the 5' end so it is not complementary
CC   to the target sequence (The complementary probe is also mismatched).
CC   These may be used either on their own or in conjunction.
CC   AAQ62245 and AAQ62246 are used to detect the G551D mutation in
CC   cystic fibrosis.  The remaining probes are selected from AAQ62247-50.
CC   This invention is also applicable to other disease related
CC   mutations.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 19 BP; 8 A; 4 C; 3 G; 4 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1435 AATTTCTTGCTGGTTGA 1451
                || |||||||| |||||
Db          18 AAATTCTTGCTCGTTGA 2


RESULT 212
AAQ62250
ID   AAQ62250 standard; DNA; 19 BP.
XX
AC   AAQ62250;
XX
DT   25-MAR-2003  (updated)
DT   21-NOV-1994  (first entry)
XX
DE   Ligase Chain Reaction - specific probe for CF mutation detection.
XX
KW   Cystic Fibrosis; CF missense mutation; improved method;
KW   diagnosis; known mutation; Ligase chain reaction; G551D; ss.
XX
OS   Synthetic.
XX
PN   WO9408047-A1.
XX
PD   14-APR-1994.
XX
PF   07-SEP-1993;   93WO-US08359.
```

XX
PR 25-SEP-1992; 92US-0951495.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Beaudet AL, Bouma SR, Fang P, Gordon J, Hsieh W;
PI Jou T;
XX
DR WPI; 1994-135607/16.
XX
PT Improved ligase chain reaction with high monovalent cation
PT concns., mismatched probes and/or high initial mixing temps -
PT used to detect small mutations in known DNA sequences, pref. for
PT detecting cystic fibrosis mutations
XX
PS Claim 24; Page 13; 64pp; English.
XX
CC The Ligase Chain Reaction has been improved to increase the
CC "flexibility" or "dynamic range" of each probe set used in the
CC detection of small mutations (single base deletions, insertions and
CC changes, as well as multiple mutations where the size of the
CC mutation is less than about 15% of the average probe length).
CC Previously the determination of the genetic constituency of an
CC individual has been time consuming. The invention comprises reacting
CC probes and sample (suspected to contain the target nucleic acid)
CC under hybridising conditions that have been modified - 1. the
CC concentration of monovalent cation (Na+, K+, or NR3H+; R = H or
CC lower alkyl) is 100-200mM; 2. a "hot start" (temp. range 50-95
CC degree C) may be used; and 3. one of the downstream probes has a
CC mismatch within 5 bases from the 5' end so it is not complementary
CC to the target sequence (The complementary probe is also mismatched).
CC These may be used either on their own or in conjunction.
CC AAQ62245 and AAQ62246 are used to detect the G551D mutation in
CC cystic fibrosis. The remaining probes are selected from AAQ62247-50.
CC This invention is also applicable to other disease related
CC mutations.
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 19 BP; 4 A; 3 C; 4 G; 8 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1435 AATTTCTTGCTGGTTGA 1451
              || |||||||| |||||
Db          2 AAATTCTTGCTCGTTGA 18
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RESULT 213
AAT74905
ID AAT74905 standard; RNA; 19 BP.
XX
AC AAT74905;
XX
DT 27-AUG-1997 (first entry)
XX
DE 5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW electrophoresis; substrate cleavage; ss.
XX
OS Alfalfa Mosaic virus 4.
XX
FH Key Location/Qualifiers
FT modified_base 1
FT /*tag= a
FT /mod_base= Triphosphorylated-G
FT modified_base 2
FT /*tag= b
FT /mod_base= 2'-OMe-U
XX
PN WO9640994-A1.
XX
PD 19-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08330.
XX
PR 07-JUN-1995; 95US-0487760.
XX
PA (MERI) MERCK & CO INC.
XX
PI Cole JL, Kuo LC, Olsen DB;
XX
DR WPI; 1997-052365/05.
XX
PT Detection of enzyme pref. endonuclease or ribozyme, in a sample -
PT by cleavage of an RNA substrate to generate a primer for a labelled
PT polymerase extension reaction
XX
PS Examples; Page 14; 34pp; English.
XX
CC This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA.
CC This sequence was used in the method of the invention for detecting
CC the enzyme activity in a sample. The method comprises: (a) adding
CC an oligonucleotide substrate to a sample to generate an oligonucleotide
CC product; (b) hybridising the oligonucleotide prod. with a DNA template
CC which comprises a first segment complementary to the oligonucleotide
CC and a 5' extension of at least one nucleotide attached to the 5' end
CC of the DNA segment, such that a DNA:RNA hybrid or a DNA:DNA duplex is
CC formed; (c) adding a DNA polymerase and labelled mononucleotides such
CC that the DNA polymerase incorporates the mononucleotides to the 3' end
CC of the oligonucleotide; and (d) measuring the amt. of labelled hybrid
CC prod. as a measure of the amt. of the enzyme activity in the sample.
CC The method is used to assay for enzymes e.g. endonuclease, exonuclease
CC or ribozymes, that act on substrates to generate single stranded
CC oligonucleotide prods. by cleaving the substrate which then forms a
CC primer for extension by a DNA polymerase on a template. It can be
CC used to identify the position where the enzyme cleaves the substrate.
CC The assay can also be used to screen for inhibitors of these enzymes.
XX
SQ Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 19;
Best Local Similarity 17.6%; Pred. No. 3e+02;
Matches 3; Conservative 12; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1521 TTTATATTTTTAACTTT 1537
                  ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18
```

RESULT 214
AAT49298
ID AAT49298 standard; RNA; 19 BP.
XX
AC AAT49298;
XX
DT 27-AUG-1997 (first entry)
XX
DE 5' end fragment of Alfalfa Mosaic Virus 4.
XX
KW Alfalfa Mosaic virus 4; influenza endonuclease; detection;
KW electrophoresis; substrate cleavage; ss.
XX
OS Alfalfa Mosaic virus 4.
XX
PN WO9640993-A1.
XX
PD 19-DEC-1996.
XX
PF 03-JUN-1996; 96WO-US08320.
XX
PR 07-JUN-1995; 95US-0487759.
XX
PA (MERI) MERCK & CO INC.

```
XX
PI   Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-052364/05.
XX
PT   Detection of influenza virus endonuclease in a sample - by cleavage
PT   of an RNA substrate to generate a primer for a labelled polymerase
PT   extension reaction
XX
PS   Claim 6; Page 12; 28pp; English.
XX
CC   This sequence represents the 5' end of Alfalfa Mosaic virus 4 RNA.
CC   This sequence was used as a substrate for influenza endonuclease in
CC   the method of the invention.  The method allows detection of influenza
CC   endonuclease activity in a sample and comprises: (a) adding an influenza
CC   endonuclease substrate to a sample to generate an RNA product; (b)
CC   hybridising the RNA prod. with a DNA template which comprises a first
CC   segment complementary to the RNA and a 5' extension of at least one
CC   nucleotide attached to the 5' end of the DNA segment, such that a
CC   DNA:RNA hybrid is formed; (c) adding a DNA polymerase and labelled
CC   mononucleotides such that the DNA polymerase incorporates the
CC   mononucleotides to the 3' end of the RNA in the RNA:DNA duplex; and
CC   (d) measuring the amount of labelled hybrid prod. as a measure of the
CC   amount of influenza endonuclease activity.  The method is used to
CC   quantitate the amount of influenza endonuclease by cleaving the RNA
CC   substrate which then forms a primer for extension by a DNA polymerase
CC   on a template.  The assay does not involve an electrophoresis step and
CC   thus may be run in a 96-well microtitre plate. The assay also monitors
CC   substrate cleavage at the correct position thereby discriminating
CC   against non-specific cleavage products.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|::::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 215
AAT47269
ID   AAT47269 standard; RNA; 19 BP.
XX
AC   AAT47269;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #3.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxyadenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|::::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 216
AAT47270
ID   AAT47270 standard; RNA; 19 BP.
XX
AC   AAT47270;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #4.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= 2'-deoxy-2'-fluoro-adenosine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
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```
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative    12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 217
AAT47271
ID   AAT47271 standard; RNA; 19 BP.
XX
AC   AAT47271;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #5.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    6
FT                    /*tag=  c
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base    12
FT                    /*tag=  d
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative    12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 218
AAT47272
ID   AAT47272 standard; RNA; 19 BP.
XX
AC   AAT47272;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #6.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag=  a
FT                    /mod_base= triphosphorylated
FT   modified_base    2
FT                    /*tag=  b
FT                    /mod_base= 2'-O-methyluridine
FT   modified_base    6
FT                    /*tag=  c
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base    12
FT                    /*tag=  d
FT                    /mod_base= 2'-deoxy-2'-fluoro-uridine
FT   modified_base    13
FT                    /*tag=  e
FT                    /mod_base= 2'-deoxy-2'-fluoro-adenosine
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```
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|::::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 219
AAT47273
ID   AAT47273 standard; RNA; 19 BP.
XX
AC   AAT47273;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #7.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   misc_feature    19
FT                   /*tag=  c
FT                   /note= "biotin labelled for attachment to solid support"
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|::::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 220
AAT47267
ID   AAT47267 standard; RNA; 19 BP.
XX
AC   AAT47267;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #1.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
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PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 13; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 221
AAT47264
ID   AAT47264 standard; RNA; 19 BP.
XX
AC   AAT47264;
XX
DT   27-AUG-1997  (first entry)
XX
DE   5' fragment of alfalfa mosaic virus.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 12; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 222
AAT47276
ID   AAT47276 standard; RNA; 19 BP.
XX
AC   AAT47276;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #8.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
```

```
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 14; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 223
AAT47277
ID   AAT47277 standard; RNA; 19 BP.
XX
AC   AAT47277;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #9.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= 2'-O-methyluridine
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 224
AAT47278
ID   AAT47278 standard; RNA; 19 BP.
XX
AC   AAT47278;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #10.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   13
FT                   /*tag=  c
FT                   /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
```

```
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 225
AAT47279
ID   AAT47279 standard; RNA; 19 BP.
XX
AC   AAT47279;
XX
DT   28-AUG-1997  (first entry)
XX
DE   Capped RNA influenza endonuclease substrate #11.
XX
KW   Capped RNA molecule; mRNA maturation; translation initiation; influenza;
KW   endonuclease aptamer; RNase; therapy; inhibitor; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= triphosphorylated
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= 2'-O-methyluridine
FT   modified_base   12
FT                   /*tag=  c
FT                   /mod_base= phosphorothioated
FT   modified_base   13
FT                   /*tag=  d
FT                   /mod_base= phosphorothioated
FT   modified_base   14
FT                   /*tag=  e
FT                   /mod_base= phosphorothioated
XX
PN   WO9640159-A1.
XX
PD   19-DEC-1996.
XX
PF   03-JUN-1996;   96WO-US08394.
XX
PR   07-JUN-1995;   95US-0480068.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Benseler F,  Cole JL,  Kuo LC,  Olsen DB;
XX
DR   WPI; 1997-051868/05.
XX
PT   Production of capped RNA or analogues - useful as substrates for
PT   influenza virus associated virally encoded endonuclease
XX
PS   Claim 18; Page 15; 39pp; English.
XX
CC   AAT47264-T47280 represent capped RNA molecules produced by the method of
CC   the invention. The method of the invention is for producing capped RNA
CC   or RNA analogues. The method comprises reacting a RNA or analogue
CC   oligonucleotide with a phosphate addition agent to form a RNA or
CC   analogue mono-, di- or triphosphate, which is then capped. The presence
CC   of the cap is important for mRNA maturation, initiation of translation,
CC   and protects the mRNA against various RNases present in the cell. The
CC   capped RNA or analogue is an influenza endonuclease aptamer, useful for
CC   treating or preventing an influenza infection in an animal. The synthetic
CC   capped RNA are substrates for virally encoded endonuclease associated
CC   with influenza virus. The short non-extendible (due to their length or
CC   because of the modification of the 3' end of the oligo) RNA molecules are
CC   potent inhibitors of the cleavage of capped RNA by influenza
CC   endonuclease. They may be used to investigate viral and cellular
CC   mechanisms of transcription/translation, or mRNA maturation.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 1 G; 14 U; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   17.6%;  Pred. No. 3e+02;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACTTT 1537
              ::: :|:::::|| :::
Db          2 UUUUUAUUUUUAAUUUU 18


RESULT 226
AAV49123
ID   AAV49123 standard; DNA; 19 BP.
XX
AC   AAV49123;
XX
DT   15-OCT-1998  (first entry)
XX
DE   rb gene antisense oligonucleotide rb-N-71.
XX
KW   rb gene; antisense oligonucleotide; modulate; gene expression; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   EP856579-A1.
XX
PD   05-AUG-1998.
XX
PF   31-JAN-1997;   97EP-0101531.
XX
PR   31-JAN-1997;   97EP-0101531.
XX
PA   (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
XX
PI   Brysch W,  Schlingensiepen K;
XX
DR   WPI; 1998-400910/35.
XX
PT   Preparation of antisense oligo:nucleotide(s) which lack long runs of
PT   consecutive guanosine or inosine - and have specific ratio of
PT   residues able to form two or three hydrogen bonds, have greater
PT   activity and reduced toxicity, used therapeutically or to modulate
PT   growth of cells in culture
XX
PS   Example 7; Fig 9b; 286pp; English.
XX
CC   AAV49008-236 represent antisense oligonucleotides directed against
CC   the rb gene. Of these, only oligonucleotides AAV49008-52 resulted in
```

CC effective downregulation of negative growth control by rb, while
CC oligonucleotides AAV49052-236 had little effect. The oligonucleotides
CC exemplify the invention. The specification describes oligonucleotides
CC that contain 8-30 nucleotides, which contain at most 8 nucleotides
CC that can each form three hydrogen bonds to cytosine; do not contain
CC four consecutive nucleotides able to form three H-bonds each to four
CC consecutive cytosines; do not contain two sequences of three consecutive
CC nucleotides each able to form three H-bonds to three consecutive
CC cytosines, and the ratio between residues able to form two H-bonds
CC each (2R) or three such bonds (3R) is given by 2R/3R = 0.33-0.72. The
CC oligonucleotides are used to modulate expression of genes, particularly
CC the genes for p53, ErB-2, junB, junD, TGF-beta 1 or beta 2 to control
CC proliferation of primary cell cultures (e.g. bone marrow stem, liver or
CC kidney cells, osteoclasts, osteoblasts and/or keratinocytes). The
CC oligonucleotides can also be used to analyse function of proteins (by
CC altering their expression or activity) and therapeutically, e.g. in
CC cases of cancer or (targeting TGF) for stimulating the immune system.
XX
SQ Sequence 19 BP; 6 A; 1 C; 1 G; 11 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1172 TTTATTAGATAAATTTC 1188
||| | ||||||||||
Db 1 TTTTTAAGATAAATTTC 17

RESULT 227
AAV26328
ID AAV26328 standard; DNA; 19 BP.
XX
AC AAV26328;
XX
DT 07-AUG-1998 (first entry)
XX
DE Human prostate cancer marker UC Band #201 identifying RT-PCR primer 1.
XX
KW Prostate cancer; human; marker; diagnosis; treatment; RT-PCR primer; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9804689-A1.
XX
PD 05-FEB-1998.
XX
PF 31-JUL-1996; 96WO-US12516.
XX
PR 31-JUL-1996; 96WO-US12516.
XX
PA (UROC-) UROCOR INC.
XX
PI An G, O'hara SM, Ralph D, Veltri R;
XX
DR WPI; 1998-130681/12.
XX
PT Human prostate cancer marker - useful for detection and treatment of
PT human prostate cancer
XX
PS Example 4; Page 120; 229pp; English.
XX
CC This primer is used in the relative quantitative RT-PCR to examine the
CC expression of the genes which is used for the identification of markers
CC of human prostate cancer. Isolated nucleic acid segments shown in
CC AAV16881 to AAV16885, AAV16890 to AAV16903, AAV26351 and AAV26352 which
CC can act as human prostate cancer markers are provided in the
CC specification. The specification also provides methods for identifying
CC markers for human prostate cancer and for detection of prostate cancer
CC cells. The markers can be identified by amplifying human prostate RNA to
CC provide nucleic acid amplification products, separating the products and
CC identifying those RNA that are differentially expressed between human
CC prostate cancers versus normal or benign human prostate. Prostate cancer
CC cells in a sample can be detected by detecting a nucleic acid in a
CC sample, the nucleic acid being a prostate cancer marker. Primers and
CC probes derived from this marker can be used for the detection of prostate
CC cancer cells in a sample. Antibodies against the protein encoded by the
CC marker nucleic acid fragments, inhibitors of the protein and
CC oligonucleotides antisense to the markers can be used in the treatment of
CC prostate cancer. The antibodies can also be used for the diagnosis of
CC human prostate cancer.
XX
SQ Sequence 19 BP; 9 A; 2 C; 4 G; 4 T; 0 other;

Query Match 1.1%; Score 13.8; DB 1; Length 19;
Best Local Similarity 88.2%; Pred. No. 3e+02;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1211 AAACAAACAATTGGGTA 1227
||||||| |||||||
Db 1 AAACAAACGTTTGGGTA 17

RESULT 228
AAZ74461
ID AAZ74461 standard; DNA; 19 BP.
XX
AC AAZ74461;
XX
DT 10-SEP-2001 (first entry)
XX
DE Human biallelic marker downstream amplification primer SEQ ID NO:8817.
XX
KW Human genome; biallelic marker; high density disequilibrium map;
KW genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW haplotyping; hybridisation; identification; characterisation;
KW amplification; single nucleotide polymorphism; SNP; PCR primer;
KW diagnosis; ss.
XX
OS Homo sapiens.
XX
PN WO9954500-A2.
XX
PD 28-OCT-1999.
XX
PF 21-APR-1999; 99WO-IB00822.
XX
PR 21-APR-1998; 98US-0082614.
PR 23-NOV-1998; 98US-0109732.
XX
PA (GEST) GENSET.
XX
PI Cohen D, Blumenfeld M, Chumakov I;
XX
DR WPI; 2000-013267/01.
XX
PT Novel biallelic markers used to construct a high density disequilibrium
PT map of the human genome -
XX
PS Claim 8; Page 2110; 2745pp; English.
XX
CC AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC invention, which contain a polymorphic base at position 24 of their
CC nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC primers for the biallelic markers. The biallelic markers of the
CC invention have a variety of uses: they can be used for high density
CC mapping of the human genome, and in complex association studies and
CC haplotyping studies which are useful in determining the genetic basis
CC for disease states. Compositions and methods of the invention can also
CC be useful for the identification of the targets for the development of
CC pharmaceutical agents and diagnostic methods, as well as the
CC characterisation of the differential efficacious responses to and side
CC effects from pharmaceutical agents acting on a disease as well as other
CC treatment.
CC N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297

```
CC   and 3367, are not actually given a sequence in the Sequence Listing
CC   from the present invention.
XX
SQ   Sequence 19 BP; 11 A; 6 C; 1 G; 1 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1208 AACAAACAAACAATTGG 1224
              ||||||||||||| | |
Db          1 AACAAACAAACAACTAG 17


RESULT 229
AAA83681
ID   AAA83681 standard; DNA; 19 BP.
XX
AC   AAA83681;
XX
DT   04-DEC-2000  (first entry)
XX
DE   cdk-we-hu ribozyme binding site #156.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic;
KW   restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US28772.
XX
PR   04-DEC-1998;   98US-0110954.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1  -
XX
PS   Disclosure; Page 65; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells.
CC   The ribozyme is resistant to endonuclease activity and hence is
CC   efficient in restenosis treatment.
XX
SQ   Sequence 19 BP; 7 A; 4 C; 3 G; 5 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1378 TACGGAATAATGAGTTA 1394
              ||| |||| ||||||||
Db          2 TACAGAATCATGAGTTA 18


RESULT 230
AAH58843
ID   AAH58843 standard; DNA; 19 BP.
XX
AC   AAH58843;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Cdk-we-hu ribozyme binding site SEQ ID NO:1267.
XX
KW   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW   recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW   proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW   cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW   matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW   antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW   antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW   atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW   basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW   sickle cell retinopathy; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200130362-A2.
XX
PD   03-MAY-2001.
XX
PF   26-OCT-2000; 2000WO-US29500.
XX
PR   26-OCT-1999;   99US-0161532.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Robbins JM,  Tritz R;
XX
DR   WPI; 2001-300427/31.
XX
PT   Treating proliferative skin or eye diseases and scarring, using
PT   ribozymes that cleave RNA encoding cytokines involved in inflammation,
PT   matrix metalloproteinases, growth factors and cell-cycle dependent
PT   kinases -
XX
PS   Example 1; Page 164; 408pp; English.
XX
CC   The present invention describes a method for treating a proliferative
CC   skin or eye disease and scarring. The method involves administering a
CC   ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC   inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC   dependent kinase, growth factor or a reductase, or administering a
CC   nucleic acid molecule (II) comprising a promoter operably linked to a
CC   nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC   dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC   ophthalmological, vulnerary, keratolytic and virucide activities, and
CC   cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC   in gene therapy. (I) and (II) are useful for treating proliferative
CC   skin diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC   squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC   also be used for treating proliferative eye diseases such as diabetic
CC   retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC   prematurity and retinal detachment, and for treating and preventing
CC   scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC   scar. AAH57577 to AAH62099 represent sequences used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 19 BP; 7 A; 4 C; 3 G; 5 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 3e+02;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1378 TACGGAATAATGAGTTA 1394
              ||| |||| ||||||||
Db          2 TACAGAATCATGAGTTA 18


RESULT 231
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```
ABZ01793/c
ID   ABZ01793 standard; DNA; 50 BP.
XX
AC   ABZ01793;
XX
DT   09-JAN-2003  (first entry)
XX
DE   Human leukocyte gene expression profiling probe SEQ ID NO 1784.
XX
KW   T7; leukocyte; gene expression profiling; allograft rejection;
KW   atherosclerosis; congestive heart failure; systemic lupus erythematosus;
KW   rheumatoid arthritis; osteoarthritis; cytomegalovirus; infection;
KW   probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200257414-A2.
XX
PD   25-JUL-2002.
XX
PF   22-OCT-2001; 2001WO-US47856.
XX
PR   20-OCT-2000; 2000US-241994P.
PR   08-JUN-2001; 2001US-296764P.
XX
PA   (BIOC-) BIOCARDIA INC.
XX
PI   Wohlgemuth J,  Fry K,  Matcuk G,  Altman P,  Prentice J,  Phillips J;
PI   Ly N,  Woodward R,  Quertermous T,  Johnson F;
XX
DR   WPI; 2002-636525/68.
XX
PT   New system for leukocyte expression profiling, diagnosing a disease, or
PT   monitoring (the rate of) progression of a disease, e.g. atherosclerosis
PT   or congestive heart failure, comprises diagnostic oligonucleotides  -
XX
PS   Claim 1; Page 382; 2038pp; English.
XX
CC   The invention relates to a system for detecting gene expression, which
CC   comprises one or two isolated DNA molecules that detect expression of a
CC   gene, where the gene corresponds to any of 8143 oligonucleotides
CC   (ABZ00010-ABZ08152) each having 50 base pairs (bp). The system is useful
CC   for leukocyte expression profiling. It is particularly useful for
CC   diagnosing a disease, monitoring (rate of) progression of a disease,
CC   predicting therapeutic outcome, determining prognosis for a patient,
CC   predicting disease complications in an individual or monitoring response
CC   to treatment in an individual. The diseases include cardiac allograft
CC   rejection, kidney allograft rejection, liver allograft rejection,
CC   atherosclerosis, congestive heart failure, systemic lupus erythematosus,
CC   rheumatoid arthritis, osteoarthritis or cytomegalovirus infection.
XX
SQ   Sequence 50 BP; 17 A; 8 C; 13 G; 12 T; 0 other;

  Query Match             1.1%;  Score 13.8;  DB 1;  Length 50;
  Best Local Similarity   58.5%;  Pred. No. 4.7e+02;
  Matches   24;  Conservative    0;  Mismatches   17;  Indels    0;  Gaps    0;

Qy        703 CCAAGAGAATATCCGAACTTTAATTTCAGGAATTGAATGGG 743
              || |   |||  | ||| || || ||| |  |||   | ||
Db         49 CCCATTCAATTCCTGAAATTAAAGTTCGGATATTCTCTTGG 9


RESULT 232
AAD26678/c
ID   AAD26678 standard; DNA; 15 BP.
XX
AC   AAD26678;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Human GPR31 gene polymorphism detecting ASO primer #1.
XX
KW   Human; G-protein coupled receptor 31; GPR31 protein; haplotyping;
KW   genotyping; gene therapy; cancer; polymorphism; ASO; primer;
KW   allele-specific oligonucleotide; ss.
XX
OS   Homo sapiens.
XX
PN   WO200190124-A2.
XX
PD   29-NOV-2001.
XX
PF   23-MAY-2001; 2001WO-US16908.
XX
PR   23-MAY-2000; 2000US-206572P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Bieglecki KM,  Duda A,  Kazemi A,  Lee HH,  Messer C;
XX
DR   WPI; 2002-089915/12.
XX
PT   Novel genetic variants of G-protein coupled receptor gene useful in
PT   studying expression and function of the protein, and for screening
PT   drugs to treat diseases e.g. cancer  -
XX
PS   Claim 16; Page 13; 75pp; English.
XX
CC   The invention relates to genetic variants of human G-protein coupled
CC   receptor 31 (GPR31) gene. The invention also relates to compositions
CC   and methods for haplotyping and/or genotyping the GPR31 gene in an
CC   individual. Polynucleotides of the invention are useful in studying
CC   the expression and function of GPR31, and in expressing GPR31 protein
CC   for use in screening candidate drugs to treat diseases related to
CC   GPR31 activity and in studying the effect of the variation on the
CC   biological activity of GPR31 as well as on the binding affinity of
CC   candidate drugs targetting GPR31 for the treatment of cancer. They
CC   are also used in gene therapy. The haplotyping method is useful for
CC   improving the efficiency and reliability of several steps in the
CC   discovery and development of drugs for treating diseases associated
CC   with GPR31 activity e.g. cancer. This method is also useful for
CC   haplotyping GPR31 gene in an individual, which can also be used by
CC   the pharmaceutical research scientist to validate GPR31 as a candidate
CC   target for, and in design of clinical trials of candidate drugs, for
CC   treating a specific condition drugs or disease predicted to be
CC   associated with GPR31 activity. The present sequence is an allele
CC   specific oligonucleotide (ASO) primer used to detect human GPR31
CC   gene polymorphisms.
XX
SQ   Sequence 15 BP; 10 A; 0 C; 1 G; 3 T; 1 other;

  Query Match             1.1%;  Score 13.6;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 2.7e+02;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1142 ATTTATTTTATTTT 1155
              |:|||||||||||
Db         15 AWTTATTTTATTTT 2


RESULT 233
ABQ79871
ID   ABQ79871 standard; DNA; 20 BP.
XX
AC   ABQ79871;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Nucleotide sequence of a PCR primer #1.
XX
KW   Polymerase chain reaction; thermal cycle; immobilisation;
KW   genetic engineering; PCR; primer; ss.
XX
OS   Synthetic.
XX
PN   JP2002191369-A.
```

```
XX
PD   09-JUL-2002.
XX
PF   27-DEC-2000; 2000JP-0399573.
XX
PR   27-DEC-2000; 2000JP-0399573.
XX
PA   (TOJO ) TOYO KOHAN CO LTD.
PA   (TAKA/) TAKAHASHI K.
XX
DR   WPI; 2002-630904/68.
XX
PT   Carrying out a thermal cycle of polymerase chain reaction (PCR) by
PT   using a substrate on which a DNA is immobilized used in medical,
PT   biochemical, molecular biological and gene engineering fields  -
XX
PS   Examples; Page 9; 13pp; Japanese.
XX
CC   The invention relates to performing a thermal cycle of PCR by using a
CC   substrate on which a deoxyribonucleic acid (DNA) is immobilized. The
CC   method is useful in the medical, biochemical, molecular biological and
CC   genetic engineering fields. Sequences ABQ79871-881 represent PCR primers
CC   used in the method of the invention.
XX
SQ   Sequence 20 BP; 3 A; 0 C; 0 G; 17 T; 0 other;

  Query Match             1.1%;  Score 13.6;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 3.5e+02;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1560 AAATTTTTTTTACTGTTTCT 1579
              ||||||||||  | ||| |
Db          1 AAATTTTTTTTTTTTTTTT 20


RESULT 234
AAQ64706
ID   AAQ64706 standard; cDNA to mRNA; 22 BP.
XX
AC   AAQ64706;
XX
DT   25-MAR-2003  (updated)
DT   04-JAN-1995  (first entry)
XX
DE   2',5'-linked tetraadenylate-antisense oligonucleotide chimeric mol.
XX
KW   antisense; 2',5'-tetraadenylate; 2-5A dependent RNase activator;
KW   RNA cleavage; antiviral therapy; chimeric molecule; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1..4
FT                   /*tag=  a
FT                   /label= 2',5'-linked_tetraadenylate
FT                   /note= "nucleotides linked through phosphodiester
FT                          bonds at hydroxyl groups of 2' and 5'
FT                          carbons"
FT   misc_feature    5..22
FT                   /*tag=  b
FT                   /note= "antisense region"
XX
PN   WO9409129-A2.
XX
PD   28-APR-1994.
XX
PF   20-OCT-1993;   93WO-US10103.
XX
PR   21-OCT-1992;   92US-0965666.
PR   17-SEP-1993;   93US-0123449.
XX
PA   (CLEV-) CLEVELAND CLINIC RES INST.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Lesiak K,  Maitra R,  Silverman R,  Torrence P;
XX
DR   WPI; 1994-151315/18.
XX
PT   Specific cleavage of RNA, useful partic. for treating viral
PT   infection, cancers, etc. - by using anti-sense oligo:nucleotide
PT   coupled to activator of 2-5A dependent RNase
XX
PS   Example 1; Page 68; 86pp; English.
XX
CC   This sequence is an example of a 2-5A-antisense oligonucleotide
CC   chimeric molecule. The antisense region targets the chimeric
CC   molecule to a particular region of RNA to be specifically
CC   cleaved and the 2',5'-linked tetraadenylate tail activates
CC   the 2-5A RNase. Typical applications are treatment of viral
CC   infections (esp. for cleavage of an RNA virus genome), cancer;
CC   leukaemia, cardiovascular disorders (e.g. restenosis after
CC   angioplasty), genetic disorders, osteoarthritis or rheumatoid
CC   arthritis.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 22 BP; 4 A; 0 C; 0 G; 18 T; 0 other;

  Query Match             1.1%;  Score 13.6;  DB 1;  Length 22;
  Best Local Similarity   80.0%;  Pred. No. 3.8e+02;
  Matches   16;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1560 AAATTTTTTTTACTGTTTCT 1579
              ||||||||||  | ||| |
Db          2 AAATTTTTTTTTTTTTTTT 21


RESULT 235
AAL55126
ID   AAL55126 standard; DNA; 30 BP.
XX
AC   AAL55126;
XX
DT   16-APR-2003  (first entry)
XX
DE   Nucleic acid synthesising method related PCR primer, SEQ ID No 7.
XX
KW   Synthesising; target base sequence; annealing; genetic disease; SNP;
KW   single nucleotide polymorphism; cancer; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   WO200290538-A1.
XX
PD   14-NOV-2002.
XX
PF   08-MAY-2002; 2002WO-JP04479.
XX
PR   08-MAY-2001; 2001JP-0137060.
PR   18-JUN-2001; 2001JP-0184131.
XX
PA   (EIKE ) EIKEN KAGAKU KK.
XX
PI   Nagamine K;
XX
DR   WPI; 2003-120547/11.
XX
PT   Synthesizing target base sequence-containing nucleic acids constituting
PT   complementary base sequences against template by the LAMP method,
PT   applicable in identifying genetic diseases, cancerization and
PT   microorganisms  -
XX
PS   Example 1; Page 62; 107pp; Japanese.
XX
CC   The invention relates to a novel method for synthesising a target base
CC   sequence-containing nucleic acids. The method comprises the formation of
CC   single-stranded nucleic acids; synthesis of complementary strand by
```

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CC   annealing; and producing single-stranded nucleic acid from a target base
CC   sequence by the synthesis of a complementary strand by annealing of a
CC   complementary base sequence. The method is useful for synthesising a
CC   target base sequence-containing nucleic acids, which is applicable in
CC   detecting SNP (single nucleotide polymorphism) in genes, identifying
CC   genetic diseases, cancer and microorganisms. Such a method can be
CC   easily, rapidly and freely carried out without being influenced by
CC   contamination or complicated temperature control, but with improved
CC   reaction specificity, high accuracy and efficiency, operable at low cost.
CC   This polynucleotide sequence represents a PCR primer used in the
CC   synthesising method of the invention.
XX
SQ   Sequence 30 BP; 15 A; 2 C; 2 G; 11 T; 0 other;

  Query Match             1.1%;  Score 13.6;  DB 1;  Length 30;
  Best Local Similarity   67.9%;  Pred. No. 4.6e+02;
  Matches   19;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy        753 ATGTGATATTTGAAGCATCACATAAAAA 780
              || ||||  || ||  |  |||||| |
Db          3 ATTTGATGCTTAAATAAATACATAAATA 30


RESULT 236
AAT56350
ID   AAT56350 standard; RNA; 15 BP.
XX
AC   AAT56350;
XX
DT   25-MAR-2003  (updated)
DT   14-MAY-1997  (first entry)
XX
DE   Mouse TNF-a hammerhead ribozyme target sequence (nt position 1326).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1043 ATTATTTATGTATTT 1057
              |::|:::|: :|:::
Db          1 AUUAUUUAUUUAUUU 15


RESULT 237
AAT56326
ID   AAT56326 standard; RNA; 15 BP.
XX
AC   AAT56326;
XX
DT   25-MAR-2003  (updated)
DT   14-MAY-1997  (first entry)
XX
DE   Mouse TNF-a hammerhead ribozyme target sequence (nt position 1311).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Mus musculus.
XX
```

```
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1039 ATTTATTATTTATGT 1053
              |:::|::|:::|: :
Db          1 AUUUAUUAUUUAUUU 15
```

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RESULT 238
AAT56332
ID   AAT56332 standard; RNA; 15 BP.
XX
AC   AAT56332;
XX
DT   25-MAR-2003  (updated)
DT   14-MAY-1997  (first entry)
XX
DE   Mouse TNF-a hammerhead ribozyme target sequence (nt position 1313).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
```

```
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1041 TTATTATTTATGTAT 1055
              ::|::|:::|: :|:
Db          1 UUAUUAUUUAUUUAU 15


RESULT 239
AAT56338
ID   AAT56338 standard; RNA; 15 BP.
XX
AC   AAT56338;
XX
DT   25-MAR-2003  (updated)
DT   14-MAY-1997  (first entry)
XX
DE   Mouse TNF-a hammerhead ribozyme target sequence (nt position 1314).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1042 TATTATTTATGTATT 1056
              :|::|:::|: :|::
Db          1 UAUUAUUUAUUUAUU 15


RESULT 240
AAT55813
ID   AAT55813 standard; RNA; 15 BP.
XX
AC   AAT55813;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1270).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
```

```
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1039 ATTTATTATTTATGT 1053
              |:::|::|:::|: :
Db          1 AUUUAUUAUUUAUUU 15
```

```
RESULT 241
AAT55815
ID   AAT55815 standard; RNA; 15 BP.
XX
AC   AAT55815;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1272).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
```

```
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1041 TTATTATTTATGTAT 1055
              ::|::|:::|: :|:
Db          1 UUAUUAUUUAUUUAU 15


RESULT 242
AAT55817
ID   AAT55817 standard; RNA; 15 BP.
XX
AC   AAT55817;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1273).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1042 TATTATTTATGTATT 1056
              :|::|:::|: :|::
Db          1 UAUUAUUUAUUUAUU 15


RESULT 243
AAT55819
ID   AAT55819 standard; RNA; 15 BP.
XX
AC   AAT55819;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1274).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
```

```
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1043 ATTATTTATGTATTT 1057
                 |::|:::|: :|:::
Db             1 AUUAUUUAUUUAUUU 15


RESULT 244
AAT55797
ID   AAT55797 standard; RNA; 15 BP.
XX
AC   AAT55797;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1259).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
```

```
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1039 ATTTATTATTTATGT 1053
              |:::|::|:::|: :
Db          1 AUUUAUUAUUUAUUU 15


RESULT 245
AAT55799
ID   AAT55799 standard; RNA; 15 BP.
XX
AC   AAT55799;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1261).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   26.7%;  Pred. No. 2.9e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1041 TTATTATTTATGTAT 1055
              ::|::|:::|: :|:
Db          1 UUAUUAUUUAUUUAU 15


RESULT 246
AAT55801
ID   AAT55801 standard; RNA; 15 BP.
XX
AC   AAT55801;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1262).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
```

KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Homo sapiens.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.
PR 16-DEC-1994; 94US-0357577.
PR 23-DEC-1994; 94US-0363233.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-adamic J, Mcswiggen JA;
PI Modak A, Pavco P, Beigleman L, Sullivan SM, Sweedler D;
PI Thompson JD, Tracz D, Usman N, Wincott FE, Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them -
PT for use in inhibiting disease related genes
XX
PS Claim 2; Page 243; 407pp; English.
XX
CC The present sequence represents a preferred target sequence for an
CC enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC mRNA at the nucleotide base position indicated in the DE line.
CC Regions of the mRNA that do not form secondary folding
CC structures and that contain potential hammerhead and hairpin
CC ribozyme cleavage sites were identified by computer analysis.
CC Ribozymes directed against these mRNA sequences were designed and
CC synthesised with modifications that improve their nuclease
CC resistance. The ribozymes are designed to cleave the target
CC sequences and thereby inhibit TNF-alpha expression, making them
CC potentially useful for treating rheumatoid arthritis, septic shock
CC and other inflammatory disorders including psoriasis, as well as
CC for treatment of AIDS.
CC (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 15;
Best Local Similarity 26.7%; Pred. No. 2.9e+02;
Matches 4; Conservative 10; Mismatches 1; Indels 0; Gaps 0;

Qy 1042 TATTATTTATGTATT 1056
:|::|:::|: :|::
Db 1 UAUUAUUUAUUUAUU 15

RESULT 247
AAT40324
ID AAT40324 standard; DNA; 15 BP.
XX
AC AAT40324;
XX
DT 05-DEC-1996 (first entry)
XX
DE Primer 1a used to optimise DNA cleavage of a ribozyme.
XX
KW Wild type; self-splicing group I intron; large ribosomal RNA precursor;
KW Tetrahymena thermophila; catalysis; enzymatic RNA; food product;
KW anti-viral agent; mutation; personal care product; cleaning agent; ss.
XX
OS Synthetic.
XX
PN WO9531551-A1.
XX
PD 23-NOV-1995.
XX
PF 26-APR-1995; 95WO-US05141.
XX
PR 01-JUL-1994; 94US-0270180.
PR 13-MAY-1994; 94US-0242402.
XX
PA (SCRI) SCRIPPS RES INST.
XX
PI Joyce GF;
XX
DR WPI; 1996-010936/01.
XX
PT Enzymatic RNA molecules having one or more point mutation(s) -
PT improve the enzymatic performance of the molecules.
XX
PS Example 1; Page 96; 209pp; English.
XX
CC The sequences given in AAT40324-26 represent primer sequences that
CC were used to optimise DNA cleavage activity of the enzymatic RNA
CC molecule of the invention. Primer 1a hybridises to the 3' portion
CC of the substrate that becomes attached to the 3' end of the ribozyme.
CC Primer 1b hybridises to the 3' portion of the ribozyme when no substrate
CC or product remains attached. Primer 2 hybridises to the 3' end of the
CC resulting cDNA and introduces the T7 promoter sequence. The self-
CC splicing group I intron of the invention is based on the large ribosomal
CC RNA precursor from Tetrahymena thermophila. The biological function of
CC this molecule is to catalyse its own excision from precursor rRNA to
CC produce mature rRNA. The Tetrahymena wild type sequence was used in
CC the design of the enzymatic RNA molecules of the invention. A number
CC of mutations are listed in the specification which improve the enzymatic
CC properties of this molecule, e.g. G444A, G191U, U190A and A314G. The
CC modified enzymatic molecules may be used as medical or pharmaceutical
CC agents for use in anti-viral agents, food products, personal care
CC products or cleaning agents.
XX
SQ Sequence 15 BP; 3 A; 0 C; 0 G; 12 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1047 TTTATGTATTTATTT 1061
||||| |||||||||
Db 1 TTTATTTATTTATTT 15

RESULT 248
AAT40327/c

```
ID   AAT40327 standard; DNA; 15 BP.
XX
AC   AAT40327;
XX
DT   05-DEC-1996  (first entry)
XX
DE   Group I intron substrate 3' portion.
XX
KW   Wild type; self-splicing group I intron; large ribosomal RNA precursor;
KW   Tetrahymena thermophila; catalysis; enzymatic RNA; food product;
KW   anti-viral agent; mutation; personal care product; cleaning agent; ss.
XX
OS   Synthetic.
XX
PN   WO9531551-A1.
XX
PD   23-NOV-1995.
XX
PF   26-APR-1995;   95WO-US05141.
XX
PR   01-JUL-1994;   94US-0270180.
PR   13-MAY-1994;   94US-0242402.
XX
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Joyce GF;
XX
DR   WPI; 1996-010936/01.
XX
PT   Enzymatic RNA molecules having one or more point mutation(s) -
PT   improve the enzymatic performance of the molecules.
XX
PS   Example 1; Page 97; 209pp; English.
XX
CC   The sequences given in AAT40327-30 represent sequences that were used to
CC   optimise DNA cleavage activity of the enzymatic RNA molecule of the
CC   invention.  The 3' potion of the substrate was transferred to the 3'
CC   terminal G of the ribozyme and amplification was performed. The product
CC   of the reaction was a molecule which contained the 3' portion of the
CC   substrate attached to the 3' end of the ribozyme.  Selection occured
CC   when a primer was hybridised across the ligation junction and used to
CC   initiate cDNA synthesis.  The primer does not bind to unreacted starting
CC   materials and thus led to selective amplification of the catalytically
CC   active RNA's.  The self-splicing group I intron of the invention is
CC   based on the large ribosomal RNA precursor from Tetrahymena thermophila.
CC   The biological function of this molecule is to catalyse its own excision
CC   from precursor rRNA to produce mature rRNA.  The Tetrahymena wild type
CC   sequence was used in the design of the enzymatic RNA molecules of the
CC   invention.  A number of mutations are listed in the specification which
CC   improve the enzymatic properties of this molecule, e.g. G444A, G191U,
CC   U190A and A314G.  The modified enzymatic molecules may be used as
CC   medical or pharmaceutical agents for use in anti-viral agents, food
CC   products, personal care products or cleaning agents.
XX
SQ   Sequence 15 BP; 12 A; 0 C; 0 G; 3 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1047 TTTATGTATTTATTT 1061
                ||||| |||||||||
Db         15 TTTATTTATTTATTT 1


RESULT 249
AAT16099/c
ID   AAT16099 standard; DNA; 15 BP.
XX
AC   AAT16099;
XX
DT   15-MAY-1996  (first entry)
XX
DE   Probe ATT-3.
XX
KW   KM31-7; glutathione reducing protein; nuclear inclusion a;
KW   protease; autolysis; protein fusion; cleavage; chloroindophenol;
KW   oxidative stress; activated oxygen; therapy; probe; ss.
XX
OS   Synthetic.
XX
PN   AU9524970-A.
XX
PD   25-JAN-1996.
XX
PF   13-JUL-1995;   95AU-0024970.
XX
PR   07-DEC-1994;   94JP-0303809.
PR   13-JUL-1994;   94JP-0161053.
PR   13-SEP-1994;   94JP-0218392.
XX
PA   (SANY ) SANKYO CO LTD.
XX
PI   Kawashima I,  Koishi R,  Serizawa N,  Takahashi T;
XX
DR   WPI; 1996-117338/13.
XX
PT   Clover yellow vein virus nuclear inclusion and di:chloro:indophenol
PT   or oxidised glutathione reducing protein  - useful in autolysing
PT   fusion protein expression systems and for treating diseases related
PT   to oxidative stress, or caused by activated oxygen, respectively.
XX
PS   Example 3; Page 87; 168pp; English.
XX
CC   DNA probe ATT-3 (AAT16099) is complementary to the AUUUA motif common
CC   to the 3' non-translated region of cytokine mRNAs.  It was used to
CC   screen a cDNA library prepd. from human bone marrow stromal
CC   KM-102 cells.  A cDNA sequence (AAT16092) coding for a novel
CC   dichloroindophenol- and glutathione-reducing protein, KM31-7
CC   (AAR92050), was obtd.  This can be used to treat diseases related to
CC   oxidative stress or caused by activated oxygen.
XX
SQ   Sequence 15 BP; 11 A; 0 C; 0 G; 4 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1044 TTATTTATGTATTTA 1058
                ||||||| |||||||
Db         15 TTATTTATTTATTTA 1


RESULT 250
AAV09042
ID   AAV09042 standard; DNA; 15 BP.
XX
AC   AAV09042;
XX
DT   25-JUN-1998  (first entry)
XX
DE   Primer 1a for tetrahymena ribozyme L-21.
XX
KW   Tetrahymena ribozyme; group I intron; amide end hydrolysis; peptidase;
KW   protease; antiviral agent; gene regulator; immunogenic virus; vaccine;
KW   mutation detection; PCR primer; ss.
XX
OS   Synthetic.
OS   Tetrahymena sp.
XX
PN   WO9802583-A1.
XX
PD   22-JAN-1998.
XX
PF   16-JUL-1997;   97WO-US12394.
XX
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PR   17-JUL-1996;   96US-0682423.
XX
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Joyce GF;
XX
DR   WPI; 1998-110627/10.
XX
PT   Catalytic RNA for site-specific cleavage of nucleic acid or
PT   hydrolysis of amide bonds - and ribozyme amidase intermediates,
PT   useful e.g. as peptidase(s), antiviral agents and gene regulators
XX
PS   Example 1; Page 90; 215pp; English.
XX
CC   This sequence is a primer for a wild type tetrahymena ribozyme L-21 form.
CC   The amplified sequence is an example of a catalytic RNA (I) of the
CC   invention, which catalyses site-specific cleavage of nucleic acid under
CC   physiological conditions includes a sequence derived from a group I
CC   intron. Similar catalytic RNAs (II) which catalyse hydrolysis of amide
CC   ends are useful as peptidases and proteases, e.g. in wound debridement,
CC   clot dissolution, in detergents or as a meat tenderiser. (I) cleave
CC   single- and (partly) double-stranded nucleic acids in vitro or in vivo,
CC   and are potentially useful as antiviral agents and gene regulators; also
CC   to generate defective but still immunogenic viruses (for vaccines);
CC   diagnostically to detect mutations in nucleic acid or to identify nucleic
CC   acid binding agents; to modulate/terminate reactions initiated by DNA
CC   primers; to generate truncated transcripts from DNA; to modulate
CC   therapeutic/diagnostic processes using antisense sequences; in DNA
CC   fingerprinting and for vector construction. (I) and (II) are produced by
CC   in vitro evolution processes that provide better catalytic performance;
CC   broader active temperature and pH ranges; new enzymatic activities or
CC   specificities; altered recognition sites or co-factor requirement.
XX
SQ   Sequence 15 BP; 3 A; 0 C; 0 G; 12 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1047 TTTATGTATTTATTT 1061
                ||||| |||||||||
Db          1 TTTATTTATTTATTT 15


RESULT 251
AAH26597
ID   AAH26597 standard; mRNA; 15 BP.
XX
AC   AAH26597;
XX
DT   12-NOV-2001  (first entry)
XX
DE   Human interferon-alpha gene 3' UTR AU-rich element.
XX
KW   Interferon-alpha; human; AU-rich element; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    2..6
FT                   /*tag=  a
FT                   /note= "AUUUA motif"
FT   misc_feature    6..10
FT                   /*tag=  b
FT                   /note= "AUUUA motif"
FT   misc_feature    10..14
FT                   /*tag=  c
FT                   /note= "AUUUA motif"
XX
PN   WO200164921-A1.
XX
PD   07-SEP-2001.
XX
PF   28-FEB-2001; 2001WO-US06782.
XX
PR   29-FEB-2000; 2000US-0515369.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Fisher PB,  Madireddi MT;
XX
DR   WPI; 2001-565508/63.
XX
PT   Melanoma differentiation associated gene-7 promoter capable of
PT   treating cancer comprises directing transcription of heterologous
PT   coding sequence encoding tumour suppressor polypeptide positioned
PT   downstream, useful for treating cancer  -
XX
PS   Disclosure; Fig 2C; 132pp; English.
XX
CC   The present sequence is that of an AU-rich sequence in the 3'
CC   untranslated region (3'UTR) of human interferon-alpha mRNA.  The
CC   presence of AU-rich elements (AREs) in eukaryotic mRNAs correlates
CC   with rapid mRNA turnover and post-translational control.  The ARE
CC   consists of multiple AUUUA motifs or sequences resembling it.  A
CC   similar ARE sequence is found in the 3' UTR of the human melanoma
CC   differentiation associated gene-7 (Mda-7) gene (see AAH26596).
CC   The invention provides recombinant expression constructs in which
CC   the human Mda-7 promoter (see AAH26595) is operably linked to a
CC   coding sequence encoding a tumour suppressor protein.  A
CC   pharmaceutical composition including the recombinant expression
CC   construct is used in a claimed method of treating melanoma,
CC   neuroblastoma, astrocytoma, glioblastoma multiforme, cervical
CC   cancer, breast cancer, colon cancer, prostate cancer, osteosarcoma,
CC   chondrosarcoma or a cancer of the central nervous system.
XX
SQ   Sequence 15 BP; 5 A; 0 C; 0 G; 10 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   33.3%;  Pred. No. 2.9e+02;
  Matches    5;  Conservative    9;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1049 TATGTATTTATTTAA 1063
                :|: :|:::|:::||
Db          1 UAUUUAUUUAUUUAA 15


RESULT 252
AAF80978
ID   AAF80978 standard; DNA; 15 BP.
XX
AC   AAF80978;
XX
DT   02-MAY-2001  (first entry)
XX
DE   PTGS2 allele specific oligonucleotide primer SEQ ID 84.
XX
KW   Human; prostaglandin-endoperoxide synthase 2; PTGS2; cyclooxygenase 2;
KW   single nucleotide polymorphism; SNP; immune-related disorder; arthritis;
KW   inflammation; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200107662-A1.
XX
PD   01-FEB-2001.
XX
PF   24-JUL-2000; 2000WO-US20114.
XX
PR   22-JUL-1999;   99US-0145170.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Denton RR,  Nandabalan K,  Sanchis A,  Stephens JC,  Tanguay DA;
XX
DR   WPI; 2001-182805/18.
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XX
PT   New nucleic acid containing polymorphisms in the cyclooxygenase-2 gene,
PT   for gene therapy of inflammation and for establishing a genotype or
PT   haplotype -
XX
PS   Disclosure; Page 23; 118pp; English.
XX
CC   This invention relates to a polynucleotide sequence that is a polymorphic
CC   variant of the human prostaglandin-endoperoxide synthase 2 (PTGS2) gene
CC   also referred to as cyclooxygenase 2. The human PTGS2 gene sequence
CC   AAF80896 contains 27 single nucleotide polymorphisms (SNPs). AAF80896 and
CC   AAF80897 represent human PTGS2 gene and coding sequence, and the PTGS2
CC   protein is represented by AAB72199. The invention includes PCR and
CC   sequencing primers, and probes represented in AAF80898 - AAF81151 which
CC   are used to isolated and characterise the PTGS2 gene sequence, and to
CC   locate the positions of the SNPs. PTGS2 proteins and polynucleotide
CC   sequences are used to express variant PTGS2 proteins, for structural
CC   analysis or drug-binding studies and also in gene therapy (either
CC   expressing PTGS2 or inhibitory RNA). Antibodies raised against PTGS2 are
CC   useful for diagnosis, prognosis and therapy and analysis of the new, and
CC   known, polymorphisms and used to determine PTGS2 haplotype and genotype,
CC   especially for determining association between a particular trait, e.g. a
CC   clinical response to drugs that target PTGS2 but also disease
CC   susceptibility, severity or stage. Anti-PTGS2 antibodies are particularly
CC   used for developing diagnostic tests and treatments for immune-related
CC   disorders such as arthritis and inflammation. The polymorphisms may also
CC   be used to study expression and biological function of PTGS2. Transgenic
CC   animals that express PTGS2 are used to study expression of PTGS2
CC   isogenes, for in vivo drug screening and testing, and for assessing
CC   effects of therapeutic agents.
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1045 TATTTATGTATTTAT 1059
             ||||||| |||||||
Db          1 TATTTATTTATTTAT 15


RESULT 253
AAF48964
ID   AAF48964 standard; DNA; 15 BP.
XX
AC   AAF48964;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #2384.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU00693.
XX
PR   21-JUN-1999;   99US-0140345.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
PT   administering UV (ultra-violet) treatment (optional) and an antisense
PT   nucleic acid that inhibits or reduces growth factor mediated cell
PT   proliferation and/or inflammation -
XX
PS   Example 7; Page 59; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects
CC   of skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and
CC   AAF45153-F45161). The method is useful for ameliorating the effects of
CC   psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
CC   keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
CC   skin, a hyperneovascular condition such as a neovascular condition of the
CC   retina, brain or skin, growth factor-mediated malignancies, other
CC   sclerotic disease, kidney disease, hyperproliferation of the inside of
CC   blood vessels or any other hyperplasia.
XX
SQ   Sequence 15 BP; 3 A; 2 C; 0 G; 10 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1520 CTTTATATTTTTAAC 1534
             |||||| ||||||||
Db          1 CTTTATTTTTTTAAC 15


RESULT 254
AAF48965
ID   AAF48965 standard; DNA; 15 BP.
XX
AC   AAF48965;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #2385.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU00693.
XX
PR   21-JUN-1999;   99US-0140345.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
```

```
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
PT   administering UV (ultra-violet) treatment (optional) and an antisense
PT   nucleic acid that inhibits or reduces growth factor mediated cell
PT   proliferation and/or inflammation -
XX
PS   Example 7; Page 59; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects
CC   of skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and
CC   AAF45153-F45161). The method is useful for ameliorating the effects of
CC   psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
CC   keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
CC   skin, a hyperneovascular condition such as a neovascular condition of the
CC   retina, brain or skin, growth factor-mediated malignancies, other
CC   sclerotic disease, kidney disease, hyperproliferation of the inside of
CC   blood vessels or any other hyperplasia.
XX
SQ   Sequence 15 BP; 3 A; 1 C; 0 G; 11 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAACT 1535
              ||||| |||||||||
Db          1 TTTATTTTTTTAACT 15


RESULT 255
AAF48966
ID   AAF48966 standard; DNA; 15 BP.
XX
AC   AAF48966;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #2386.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU00693.
XX
PR   21-JUN-1999;   99US-0140345.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
PT   administering UV (ultra-violet) treatment (optional) and an antisense
PT   nucleic acid that inhibits or reduces growth factor mediated cell
PT   proliferation and/or inflammation -
XX
PS   Example 7; Page 59; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects
CC   of skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and
CC   AAF45153-F45161). The method is useful for ameliorating the effects of
CC   psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
CC   keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
CC   skin, a hyperneovascular condition such as a neovascular condition of the
CC   retina, brain or skin, growth factor-mediated malignancies, other
CC   sclerotic disease, kidney disease, hyperproliferation of the inside of
CC   blood vessels or any other hyperplasia.
XX
SQ   Sequence 15 BP; 3 A; 1 C; 0 G; 11 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 2.9e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1522 TTATATTTTTAACTT 1536
              |||| ||||||||||
Db          1 TTATTTTTTTAACTT 15


RESULT 256
AAF48967
ID   AAF48967 standard; DNA; 15 BP.
XX
AC   AAF48967;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #2387.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU00693.
XX
PR   21-JUN-1999;   99US-0140345.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
PT   administering UV (ultra-violet) treatment (optional) and an antisense
PT   nucleic acid that inhibits or reduces growth factor mediated cell
PT   proliferation and/or inflammation -
XX
PS   Example 7; Page 59; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects
```

CC of skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and
CC AAF45153-F45161). The method is useful for ameliorating the effects of
CC psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
CC keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
CC skin, a hyperneovascular condition such as a neovascular condition of the
CC retina, brain or skin, growth factor-mediated malignancies, other
CC sclerotic disease, kidney disease, hyperproliferation of the inside of
CC blood vessels or any other hyperplasia.
XX
SQ Sequence 15 BP; 3 A; 1 C; 0 G; 11 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 2.9e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1523 TATATTTTTAACTTT 1537
              ||| |||||||||||
Db          1 TATTTTTTTAACTTT 15
```

RESULT 257
AAT40332/c
ID AAT40332 standard; DNA; 16 BP.
XX
AC AAT40332;
XX
DT 06-DEC-1996 (first entry)
XX
DE DNA cleavage substrate #2 for generation of improved ribozymes.
XX
KW Wild type; self-splicing group I intron; large ribosomal RNA precursor;
KW Tetrahymena thermophila; catalysis; enzymatic RNA; food product;
KW anti-viral agent; mutation; personal care product; cleaning agent; ss.
XX
OS Synthetic.
XX
PN WO9531551-A1.
XX
PD 23-NOV-1995.
XX
PF 26-APR-1995; 95WO-US05141.
XX
PR 01-JUL-1994; 94US-0270180.
PR 13-MAY-1994; 94US-0242402.
XX
PA (SCRI) SCRIPPS RES INST.
XX
PI Joyce GF;
XX
DR WPI; 1996-010936/01.
XX
PT Enzymatic RNA molecules having one or more point mutation(s) -
PT improve the enzymatic performance of the molecules.
XX
PS Example 1; Page 111; 209pp; English.
XX
CC The sequences given in AAT40331-32 represent sequences that were as
CC substrate molecules in experiments for selection of improved catalytic
CC activity of ribozymes. The evolution experiment spanned 10 successive
CC generations and catalytic activity was deduced after each generation.
CC The self-splicing group I intron of the invention is based on the large
CC ribosomal RNA precursor from Tetrahymena thermophila. The biological
CC function of this molecule is to catalyse its own excision from precursor
CC rRNA to produce mature rRNA. The Tetrahymena wild type sequence was
CC used in the design of the enzymatic RNA molecules of the invention.
CC A number of mutations are listed in the specification which improve
CC the enzymatic properties of this molecule, e.g. G444A, G191U, U190A and
CC A314G. The modified enzymatic molecules may be used as medical or
CC pharmaceutical agents for use in anti-viral agents, food products,
CC personal care products or cleaning agents.
XX
SQ Sequence 16 BP; 13 A; 0 C; 0 G; 3 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 16;
Best Local Similarity 93.3%; Pred. No. 3.1e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1047 TTTATGTATTTATTT 1061
              ||||| |||||||||
Db         15 TTTATTTATTTATTT 1
```

RESULT 258
AAT40329
ID AAT40329 standard; DNA; 16 BP.
XX
AC AAT40329;
XX
DT 05-DEC-1996 (first entry)
XX
DE Improved cleavage group I intron primer 1.
XX
KW Wild type; self-splicing group I intron; large ribosomal RNA precursor;
KW Tetrahymena thermophila; catalysis; enzymatic RNA; food product;
KW anti-viral agent; mutation; personal care product; cleaning agent; ss.
XX
OS Synthetic.
XX
PN WO9531551-A1.
XX
PD 23-NOV-1995.
XX
PF 26-APR-1995; 95WO-US05141.
XX
PR 01-JUL-1994; 94US-0270180.
PR 13-MAY-1994; 94US-0242402.
XX
PA (SCRI) SCRIPPS RES INST.
XX
PI Joyce GF;
XX
DR WPI; 1996-010936/01.
XX
PT Enzymatic RNA molecules having one or more point mutation(s) -
PT improve the enzymatic performance of the molecules.
XX
PS Example 1; Page 98; 209pp; English.
XX
CC The sequences given in AAT40327-30 represent sequences that were used to
CC optimise DNA cleavage activity of the enzymatic RNA molecule of the
CC invention. The 3' potion of the substrate was transferred to the 3'
CC terminal G of the ribozyme and amplification was performed. The product
CC of the reaction was a molecule which contained the 3' portion of the
CC substrate attached to the 3' end of the ribozyme. Selection occured
CC when a primer was hybridised across the ligation junction and used to
CC initiate cDNA synthesis. The primer does not bind to unreacted starting
CC materials and thus led to selective amplification of the catalytically
CC active RNA's. The self-splicing group I intron of the invention is
CC based on the large ribosomal RNA precursor from Tetrahymena thermophila.
CC The biological function of this molecule is to catalyse its own excision
CC from precursor rRNA to produce mature rRNA. The Tetrahymena wild type
CC sequence was used in the design of the enzymatic RNA molecules of the
CC invention. A number of mutations are listed in the specification which
CC improve the enzymatic properties of this molecule, e.g. G444A, G191U,
CC U190A and A314G. The modified enzymatic molecules may be used as
CC medical or pharmaceutical agents for use in anti-viral agents, food
CC products, personal care products or cleaning agents.
XX
SQ Sequence 16 BP; 3 A; 1 C; 0 G; 12 T; 0 other;

```
  Query Match             1.1%;  Score 13.4;  DB 1;  Length 16;
  Best Local Similarity   93.3%;  Pred. No. 3.1e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1047 TTTATGTATTTATTT 1061
              ||||| |||||||||
Db          1 TTTATTTATTTATTT 15


RESULT 259
AAV09052
ID   AAV09052 standard; DNA; 16 BP.
XX
AC   AAV09052;
XX
DT   25-JUN-1998  (first entry)
XX
DE   Primer 1 for tetrahymena ribozyme L-21.
XX
KW   Tetrahymena ribozyme; group I intron; amide end hydrolysis; peptidase;
KW   protease; antiviral agent; gene regulator; immunogenic virus; vaccine;
KW   mutation detection; PCR primer; ss.
XX
OS   Synthetic.
OS   Tetrahymena sp.
XX
PN   WO9802583-A1.
XX
PD   22-JAN-1998.
XX
PF   16-JUL-1997;   97WO-US12394.
XX
PR   17-JUL-1996;   96US-0682423.
XX
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Joyce GF;
XX
DR   WPI; 1998-110627/10.
XX
PT   Catalytic RNA for site-specific cleavage of nucleic acid or
PT   hydrolysis of amide bonds - and ribozyme amidase intermediates,
PT   useful e.g. as peptidase(s), antiviral agents and gene regulators
XX
PS   Example 1; Page 92; 215pp; English.
XX
CC   This sequence is a primer for a wild type tetrahymena ribozyme L-21 form.
CC   The amplified sequence is an example of a catalytic RNA (I) of the
CC   invention, which catalyses site-specific cleavage of nucleic acid under
CC   physiological conditions includes a sequence derived from a group I
CC   intron. Similar catalytic RNAs (II) which catalyse hydrolysis of amide
CC   ends are useful as peptidases and proteases, e.g. in wound debridement,
CC   clot dissolution, in detergents or as a meat tenderiser. (I) cleave
CC   single- and (partly) double-stranded nucleic acids in vitro or in vivo,
CC   and are potentially useful as antiviral agents and gene regulators; also
CC   to generate defective but still immunogenic viruses (for vaccines);
CC   diagnostically to detect mutations in nucleic acid or to identify nucleic
CC   acid binding agents; to modulate/terminate reactions initiated by DNA
CC   primers; to generate truncated transcripts from DNA; to modulate
CC   therapeutic/diagnostic processes using antisense sequences; in DNA
CC   fingerprinting and for vector construction. (I) and (II) are produced by
CC   in vitro evolution processes that provide better catalytic performance;
CC   broader active temperature and pH ranges; new enzymatic activities or
CC   specificities; altered recognition sites or co-factor requirement.
XX
SQ   Sequence 16 BP; 3 A; 1 C; 0 G; 12 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 16;
  Best Local Similarity   93.3%;  Pred. No. 3.1e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1047 TTTATGTATTTATTT 1061
              ||||| |||||||||
Db          1 TTTATTTATTTATTT 15


RESULT 260
AAC65598/c
ID   AAC65598 standard; DNA; 16 BP.
XX
AC   AAC65598;
XX
DT   14-FEB-2001  (first entry)
XX
DE   Human uteroglobin SNP PCR primer hUG-3100AF.
XX
KW   Mouse; uteroglobin; immunoglobulin A mediated disease; IgA nephropathy;
KW   autoimmune disorder; pulmonary inflammation; Wegener's granulomatosus;
KW   Goodpasture's disease; diabetic glomerulosclerosis; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200062795-A2.
XX
PD   26-OCT-2000.
XX
PF   13-APR-2000; 2000WO-US09979.
XX
PR   21-APR-1999;   99US-0130434.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Mukherjee AB,  Zheng F,  Zhang Z;
XX
DR   WPI; 2000-687100/67.
XX
PT   Use of a composition comprising uteroglobin (or a fragment, derivative,
PT   mimetic or variant), for inhibiting or treating an immunoglobulin-A
PT   mediated autoimmune disorders, e.g. diabetic glomerulosclerosis and
PT   pulmonary inflammation -
XX
PS   Example 12; Page 43; 60pp; English.
XX
CC   The present invention describes the use of uteroglobin in the diagnosis
CC   and prevention of IgA mediated diseases, such as IgA nephropathy,
CC   Wegener's granulomatosus, Goodpasture's disease and diabetic
CC   glomerulosclerosis. This is possible as uteroglobin binds to fibronectin,
CC   preventing the complexing of fibronectin with IgA and the deposition of
CC   immune complexes in the kidney.
XX
SQ   Sequence 16 BP; 1 A; 0 C; 3 G; 12 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 16;
  Best Local Similarity   93.3%;  Pred. No. 3.1e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1204 ATTAAACAAACAAAC 1218
              | ||||||||||||||
Db         15 AATAAACAAACAAAC 1


RESULT 261
AAQ78891/c
ID   AAQ78891 standard; DNA; 17 BP.
XX
AC   AAQ78891;
XX
DT   25-MAR-2003  (updated)
DT   18-DEC-1995  (first entry)
XX
DE   Humicola grisea glucoamylase hybridization probe.
XX
KW   Glucoamylase; DNA probe; gene cloning; protein secretion; ss.
XX
OS   Synthetic.
XX
```

PN EP625577-A1.
XX
PD 23-NOV-1994.
XX
PF 27-AUG-1986; 94EP-0201751.
XX
PR 29-AUG-1985; 85US-0771374.
PR 07-JUL-1986; 86US-0882224.
PR 27-AUG-1986; 86EP-0306624.
XX
PA (GEMV) GENENCOR INT INC.
XX
PI Berka RM, Cullen D, Gray GL, Hayenga KJ, Lawlis VB;
XX
DR WPI; 1994-359750/45.
XX
PT Vectors and DNA for expressing polypeptide(s) in filamentous fungi
PT - include secretory signal sequences that are native or foreign to
PT heterologous polypeptide(s), such as chymosin or glucoamylase.
XX
PS Example 9A3; Page 22; 50pp; English.
XX
CC The DNA probe and corresponding probes covering the degenerate
CC sites (AAQ78885-Q78890) correspond to amino acids 17-22 of the
CC H. grisea glucoamylase peptide GA1 (AAR62933), and are used as
CC hybridization probes to detect and isolate H. grisea glucoamylase
CC DNA in a Southern blot. Resulting genomic DNA fragments are
CC excised and cloned in plasmid pRSH1. This illustrates the main
CC claims of the patent, i.e. a vector containing (i) DNA encoding
CC a heterologous polypeptide (chymosin, prochymosin, preprochymosin,
CC Aspergillus niger glucoamylase, H. grisea glucoamylase, or Mucor
CC miehei carboxyl protease) and (ii) a secretory signal peptide,
CC and a filamentous fungus (Aspergillus, Trichoderma, Neurospora,
CC Podospora, Endothia, Mucor, Cochiobolus or Pyriclaria, especially
CC A. nidulans, A. awamori or T. reesei) transformed with the vector
CC for recombinant protein (enzyme) production.
CC (Updated on 25-MAR-2003 to correct PF field.)
CC (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ Sequence 17 BP; 11 A; 2 C; 0 G; 3 T; 1 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1047 TTTATGTATTTATTT 1061
||||||||||||| |
Db 17 TTTATGTATTTATMT 3

RESULT 262
AAQ92084
ID AAQ92084 standard; cDNA; 17 BP.
XX
AC AAQ92084;
XX
DT 25-MAR-2003 (updated)
DT 07-JAN-1996 (first entry)
XX
DE Renilla reniformis luciferase DNA probe-1.
XX
KW Luciferase; enzyme; bioluminescence; luminescence; label; DNA probe;
KW antibody; oligonucleotide; ss.
XX
OS Synthetic.
XX
PN US5418155-A.
XX
PD 23-MAY-1995.
XX
PF 14-DEC-1993; 93US-0167650.
XX
PR 29-DEC-1989; 89US-0458952.
PR 20-AUG-1992; 92US-0933017.
PR 17-JUN-1993; 93US-0079700.
PR 14-DEC-1993; 93US-0167650.
XX
PA (UYGE-) UNIV GEORGIA RES FOUND INC.
XX
PI Cormier MJ, Lorenz WW;
XX
DR WPI; 1995-199741/26.
XX
PT New recombinant Renilla luciferase polypeptide - used as a
PT luminescent tag, partic in bio-luminescence assays and for the prodn
PT of antibodies
XX
PS Disclosure; Fig. 4; 18pp; English.
XX
CC This 17-mer oligonucleotide DNA probe, along with Probe-2 (AAQ92085)
CC are used to screen an R. reniformis cDNA library to isolate cDNA
CC encoding Renilla luciferase. The luciferase was then expressed
CC using E. coli.
CC (Updated on 25-MAR-2003 to correct PF field.)
CC (Updated on 25-MAR-2003 to correct DR field.)
XX
SQ Sequence 17 BP; 6 A; 0 C; 2 G; 9 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1259 AAATAATTTTTTAGT 1273
||||||||||||| ||
Db 3 AAATAATTTTTTTGT 17

RESULT 263
AAT81505/c
ID AAT81505 standard; RNA; 17 BP.
XX
AC AAT81505;
XX
DT 14-DEC-1997 (first entry)
XX
DE Human c-myb hammerhead ribozyme target sequence (nt. position 2712).
XX
KW Enzymatic nucleic acid; hammerhead; ribozyme; cleavage; human;
KW smooth muscle cell; hyperproliferation; restenosis; cancer;
KW c-myb; coronary angioplasty; ss.
XX
OS Homo sapiens.
XX
PN WO9531541-A2.
XX
PD 23-NOV-1995.
XX
PF 18-MAY-1995; 95WO-US06368.
XX
PR 13-JAN-1995; 95US-0373124.
PR 18-MAY-1994; 94US-0245466.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Draper K, Jarvis T, McSwiggen J, Stinchcomb DT;
XX
DR WPI; 1996-010927/01.
XX
PT New enzymatic nucleic acid molecules - which cleave RNA produced by
PT e.g. c-myb, for treating restenosis or cancer
XX
PS Claim 1; Page 77; 128pp; English.
XX
CC The present sequence represents the preferred target sequence for an
CC enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC the human c-myb sequence at the base position indicated in the

```
CC   descriptor line. The c-myb sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm, and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified.  Ribozymes were synthesised and
CC   their activities optimised by either varying the length of the binding
CC   arms or by modification to prevent degradation by nucleases.
CC   The ribozymes cleave the c-myb sequence and can be used to prevent
CC   smooth muscle cell hyperproliferation in restenosis, especially after
CC   coronary angioplasty, and in cancers.
XX
SQ   Sequence 17 BP; 8 A; 0 C; 0 G; 9 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1617 AAAATATAATTTGTT 1631
              ||||||||||||| ||
Db         16 AAAATATAATTTTTT 2


RESULT 264
AAX75068/c
ID   AAX75068 standard; RNA; 17 BP.
XX
AC   AAX75068;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #596.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 173; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 0 A; 0 C; 2 G; 15 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       616 ACAAAAAACAACAAA 630
             ||||||||||| |||
Db        15 ACAAAAAACAAAAAA 1


RESULT 265
AAX70035
ID   AAX70035 standard; RNA; 17 BP.
XX
AC   AAX70035;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1330.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 86; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 9 A; 2 C; 0 G; 6 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   60.0%;  Pred. No. 3.3e+02;
  Matches    9;  Conservative    5;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       803 ATAAAGTCAAATTTA 817
             |:||| :||||:::|
Db         2 AUAAACUCAAAUUUA 16


RESULT 266
```

```
AAX69549/c
ID   AAX69549 standard; RNA; 17 BP.
XX
AC   AAX69549;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #844.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 72; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 7 A; 3 C; 2 G; 5 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        749 TAGAATGTGATATTT 763
              ||||||||||| ||||
Db         17 TAGAATGTGACATTT 3


RESULT 267
AAT60263/c
ID   AAT60263 standard; DNA; 17 BP.
XX
AC   AAT60263;
XX
DT   19-OCT-1997  (first entry)
XX
DE   ASO 2184dAN wild-type sequence of cystic fibrosis mutation.
XX
KW   Multiplex allele-specific diagnostic assay; MASDA;
KW   allele-specific oligonucleotide; ASO; polymorphism;
KW   genetic disease; diagnosis; cystic fibrosis; ss.
XX
OS   Synthetic.
XX
PN   WO9710366-A2.
XX
PD   20-MAR-1997.
XX
PF   13-SEP-1996;   96WO-US14842.
XX
PR   13-SEP-1996;   96WO-US14842.
XX
PA   (GENZ ) GENZYME CORP.
XX
PI   Shuber AP;
XX
DR   WPI; 1997-202258/18.
XX
PT   Identifying genetic alterations or target sequences in nucleic acid
PT   samples - useful for detecting genetic alterations associated with a
PT   disease, e.g. cystic fibrosis and sickle cell anaemia
XX
PS   Example 2; Page 42; 85pp; English.
XX
CC   Allele-specific oligonucleotides (ASOs) (AAT60210-41) representing
CC   known cystic fibrosis mutations, and corresponding ASOs (AAT60242-70)
CC   representing wild-type sequences, are examples of ASOs that can be
CC   used in a multiplex allele-specific diagnostic assay (MASDA) that
CC   has the capacity to analyse over 500 samples of a large number of
CC   mutations (over 100) in a single assay.  Target DNA is immobilised
CC   to a solid support and interrogated in combinatorial fashion with a
CC   mixture of mutation-specific ASOs in solution.  The ASO(s)
CC   corresponding to the specific mutation(s) present in the sample is
CC   hybrid-selected from the pool, and the mutation(s) is identified.
CC   MASDA can be used to detect genetic alterations associated with
CC   genetic disorders, to identify genetic polymorphisms, to determine
CC   the molecular basis of genetic diseases, or for high-resolution
CC   identification of disease-causing microorganisms.
XX
SQ   Sequence 17 BP; 1 A; 1 C; 3 G; 12 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACAAT 1221
              ||||||| |||||||
Db         16 AAACAAAAAAACAAT 2


RESULT 268
AAA21205
ID   AAA21205 standard; RNA; 17 BP.
XX
AC   AAA21205;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4431.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
```

```
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors -
XX
PS   Claim 55; Page 193; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 4 A; 1 C; 2 G; 10 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   33.3%;  Pred. No. 3.3e+02;
  Matches    5;  Conservative    9;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1524 ATATTTTTAACTTTA 1538
              |:|::::: ||:::|
Db          3 AUAUUUUUUACUUUA 17


RESULT 269
AAA21206
ID   AAA21206 standard; RNA; 17 BP.
XX
AC   AAA21206;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4432.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors -
XX
PS   Claim 55; Page 193; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 4 A; 1 C; 2 G; 10 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   33.3%;  Pred. No. 3.3e+02;
  Matches    5;  Conservative    9;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1524 ATATTTTTAACTTTA 1538
              |:|::::: ||:::|
Db          2 AUAUUUUUUACUUUA 16


RESULT 270
AAA21207
ID   AAA21207 standard; RNA; 17 BP.
XX
AC   AAA21207;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4433.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
```

KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 55; Page 193; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 5 A; 1 C; 1 G; 10 U; 0 other;

```
  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   33.3%;  Pred. No. 3.3e+02;
  Matches    5;  Conservative    9;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1524 ATATTTTTAACTTTA 1538
                |:|::::: ||:::|
Db          1 AUAUUUUUUACUUUA 15
```

RESULT 271
AAA21376
ID AAA21376 standard; RNA; 17 BP.
XX
AC AAA21376;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:4602.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 55; Page 204; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 6 A; 1 C; 1 G; 9 U; 0 other;

```
  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   46.7%;  Pred. No. 3.3e+02;
  Matches    7;  Conservative    7;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1617 AAAATATAATTTGTT 1631
                ||||:|:| :::|::
Db          2 AAAAUAUAUUUUGUU 16
```

RESULT 272
AAA22695
ID AAA22695 standard; RNA; 17 BP.

```
XX
AC   AAA22695;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5921.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 236; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 5 A; 0 C; 0 G; 12 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   26.7%;  Pred. No. 3.3e+02;
  Matches    4;  Conservative   10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1040 TTTATTATTTATGTA 1054
              ::: |:: |::: : |
Db          3 UUUAUUAUUUAUUUA 17
```

```
RESULT 273
AAF02054/c
ID   AAF02054 standard; DNA; 17 BP.
XX
AC   AAF02054;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #349.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 63; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 1 G; 8 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1004 AACATAAATTATTTT 1018
              || ||||||||||||
Db         15 AAAATAAATTATTTT 1

RESULT 274
AAF04949
ID   AAF04949 standard; DNA; 17 BP.
XX
AC   AAF04949;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #2465.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
```

XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 4; Page 112; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 7 A; 1 C; 2 G; 7 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 632 AATTTTTGAATATAA 646
||| ||||||||||||
Db 3 AATGTTTGAATATAA 17

RESULT 275
AAF05525
ID AAF05525 standard; DNA; 17 BP.
XX
AC AAF05525;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #2744.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 18; Page 118; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 7 A; 1 C; 1 G; 8 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 626 ACAAATAATTTTTGA 640
|| ||||||||||||
Db 3 ACTAATAATTTTTGA 17

RESULT 276
ABV80424/c
ID ABV80424 standard; DNA; 17 BP.
XX
AC ABV80424;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 1670.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;
KW male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS Homo sapiens.
XX
PN EP1229046-A2.
XX
PD 07-AUG-2002.
XX
PF 28-JAN-2002; 2002EP-0001167.
XX
PR 30-JAN-2001; 2001WO-US00663.
PR 30-JAN-2001; 2001WO-US00664.
PR 30-JAN-2001; 2001WO-US00665.
PR 30-JAN-2001; 2001WO-US00667.
PR 30-JAN-2001; 2001WO-US00668.
PR 30-JAN-2001; 2001WO-US00669.
PR 23-MAY-2001; 2001US-0864761.
PR 09-OCT-2001; 2001US-0327898.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Zhan J;
XX
DR WPI; 2002-676582/73.
XX
PT Novel isolated human testis expressed Patched like protein (HTPL),
PT useful for identifying agonist and antagonist and specific binding
PT partners, and for treating subjects having defects in HTPL -
XX
PS Example 2; Page 282; 718pp; English.
XX
CC The present invention relates to human testis expressed Patched like
CC protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC has two isoforms, with a few single base pair differences between the
CC two. One of the single base pair changes introduces a premature stop
CC codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC shares an overall structure organisation with the Patched protein. The
CC shared structural features strongly imply that HTPL plays a role similar
CC to that of Patched, and is a potential tumour suppressor. HTPL is

CC important in regulating male germ cell development, and the HTPL gene was
CC mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC useful for diagnosing a disorder caused by mutation in HTPL, and in
CC therapy and manufacture of a medicament for treatment or prevention of
CC such disorder associated with decreased expression or activity of human
CC HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC clinically useful diagnostic markers and potenial therapeutic agents for
CC male infertility and cancer. The present oligonucleotide was used in an
CC example from the invention.
XX
SQ Sequence 17 BP; 3 A; 1 C; 1 G; 12 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 677 TACAAATAGCAAAAT 691
|| ||||||||||||
Db 17 TAAAAATAGCAAAAT 3

RESULT 277
ABV80428/c
ID ABV80428 standard; DNA; 17 BP.
XX
AC ABV80428;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 1674.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;
KW male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS Homo sapiens.
XX
PN EP1229046-A2.
XX
PD 07-AUG-2002.
XX
PF 28-JAN-2002; 2002EP-0001167.
XX
PR 30-JAN-2001; 2001WO-US00663.
PR 30-JAN-2001; 2001WO-US00664.
PR 30-JAN-2001; 2001WO-US00665.
PR 30-JAN-2001; 2001WO-US00667.
PR 30-JAN-2001; 2001WO-US00668.
PR 30-JAN-2001; 2001WO-US00669.
PR 23-MAY-2001; 2001US-0864761.
PR 09-OCT-2001; 2001US-0327898.
XX
PA (ABOM-) ABOMICA INC.
XX
PI Zhan J;
XX
DR WPI; 2002-676582/73.
XX
PT Novel isolated human testis expressed Patched like protein (HTPL),
PT useful for identifying agonist and antagonist and specific binding
PT partners, and for treating subjects having defects in HTPL -
XX
PS Example 2; Page 283; 718pp; English.
XX
CC The present invention relates to human testis expressed Patched like
CC protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC has two isoforms, with a few single base pair differences between the
CC two. One of the single base pair changes introduces a premature stop
CC codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC shares an overall structure organisation with the Patched protein. The
CC shared structural features strongly imply that HTPL plays a role similar
CC to that of Patched, and is a potential tumour suppressor. HTPL is
CC important in regulating male germ cell development, and the HTPL gene was
CC mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC useful for diagnosing a disorder caused by mutation in HTPL, and in
CC therapy and manufacture of a medicament for treatment or prevention of
CC such disorder associated with decreased expression or activity of human
CC HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC clinically useful diagnostic markers and potenial therapeutic agents for
CC male infertility and cancer. The present oligonucleotide was used in an
CC example from the invention.
XX
SQ Sequence 17 BP; 4 A; 2 C; 1 G; 10 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 675 TATACAAATAGCAAA 689
|||| ||||||||||
Db 15 TATAAAAATAGCAAA 1

RESULT 278
ABK17631/c
ID ABK17631 standard; RNA; 17 BP.
XX
AC ABK17631;
XX
DT 09-APR-2002 (first entry)
XX
DE Human ERG hammerhead ribozyme target sequence, Seq ID No 278.
XX
KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW amberzyme.
XX
OS Homo sapiens.
XX
PN WO200188124-A2.
XX
PD 22-NOV-2001.
XX
PF 16-MAY-2001; 2001WO-US15866.
XX
PR 16-MAY-2000; 2000US-0572021.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (GLAX) GLAXO GROUP LTD.
XX
PI Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
XX
DR WPI; 2002-082995/11.
XX
PT Novel polynucleotide which down regulates expression of Ets-related
PT gene, useful for treating cancer, diabetic retinopathy, macular
PT degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
PT syndrome -
XX
PS Claim 4; Page 63; 149pp; English.
XX
CC The invention relates to a nucleic acid molecule (I) which down regulates
CC expression of an Ets-related gene (ERG). (I) is useful for treating
CC conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC tumour angiogenesis, diabetic retinopathy, macular degeneration,

CC neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC treating a patient having a condition associated with the level of ERG,
CC by contacting cells of the patient with (I) under conditions suitable for
CC the treatment. The method comprises the use of one or more therapies
CC under conditions suitable for the treatment. Leukaemia or tumour
CC angiogenesis is treated by administering (I) to the patient in
CC conjunction with one or more of other therapies such as radiation or
CC chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC diseases related to the expression of ERG, and as diagnostic tool to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of ERG RNA in a cell. (I) is useful for specifically
CC targeting genes that share homology with ERG gene or ERG fusion genes.
CC ABK17354-ABK22719 represent nucleic acids, including antisense and
CC enzymatic nucleic acid molecules which regulate expression of ERG, and
CC related PCR primers of the invention.
XX
SQ Sequence 17 BP; 8 A; 2 C; 1 G; 6 U; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy       1504 ATTTTTAAATACAAG 1518
              ||||||||||||| |
Db         16 ATTTTTAAATACAGG 2
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RESULT 279
ABK17632/c
ID ABK17632 standard; RNA; 17 BP.
XX
AC ABK17632;
XX
DT 09-APR-2002 (first entry)
XX
DE Human ERG hammerhead ribozyme target sequence, Seq ID No 279.
XX
KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW amberzyme.
XX
OS Homo sapiens.
XX
PN WO200188124-A2.
XX
PD 22-NOV-2001.
XX
PF 16-MAY-2001; 2001WO-US15866.
XX
PR 16-MAY-2000; 2000US-0572021.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (GLAX) GLAXO GROUP LTD.
XX
PI Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
XX
DR WPI; 2002-082995/11.
XX
PT Novel polynucleotide which down regulates expression of Ets-related
PT gene, useful for treating cancer, diabetic retinopathy, macular
PT degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
PT syndrome -
XX
PS Claim 4; Page 63; 149pp; English.
XX
CC The invention relates to a nucleic acid molecule (I) which down regulates
CC expression of an Ets-related gene (ERG). (I) is useful for treating
CC conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC treating a patient having a condition associated with the level of ERG,
CC by contacting cells of the patient with (I) under conditions suitable for
CC the treatment. The method comprises the use of one or more therapies
CC under conditions suitable for the treatment. Leukaemia or tumour
CC angiogenesis is treated by administering (I) to the patient in
CC conjunction with one or more of other therapies such as radiation or
CC chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC diseases related to the expression of ERG, and as diagnostic tool to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of ERG RNA in a cell. (I) is useful for specifically
CC targeting genes that share homology with ERG gene or ERG fusion genes.
CC ABK17354-ABK22719 represent nucleic acids, including antisense and
CC enzymatic nucleic acid molecules which regulate expression of ERG, and
CC related PCR primers of the invention.
XX
SQ Sequence 17 BP; 7 A; 2 C; 2 G; 6 U; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1504 ATTTTTAAATACAAG 1518
              ||||||||||||| |
Db         15 ATTTTTAAATACAGG 1
```

RESULT 280
ABA02551/c
ID ABA02551 standard; DNA; 17 BP.
XX
AC ABA02551;
XX
DT 26-MAR-2002 (first entry)
XX
DE Human ADAMTS-M PCR primer (reverse).
XX
KW Osteoarthritis; rheumatoid arthritis; inflammatory bowel disease;
KW Crohn's disease; asthma; Alzheimer's disease; organ transplant rejection;
KW cachexia; allergy; cancer; leukaemia; lymphoma; osteoporosis;
KW atherosclerosis; congestive heart failure; myocardial infarction; stroke;
KW neurodegenerative disease; autoimmune disorder; Huntington's;
KW Parkinson's; migraine; pain; depression; multiple sclerosis; burn;
KW infertility; diabetic shock; gene therapy; ADAMTS-M; PCR; primer; ss;
KW A Disintegrin And Metalloprotease; thrombospondin domain.
XX
OS Homo sapiens.
XX
PN EP1152055-A1.
XX
PD 07-NOV-2001.
XX
PF 24-APR-2001; 2001EP-0303706.
XX
PR 27-APR-2000; 2000US-200040P.
XX
PA (PFIZ) PFIZER PROD INC.
XX
PI Buckbinder L, Mitchell PG, Wachtmann TS, Walsh RT;

```
XX
DR   WPI; 2002-084275/12.
XX
PT   New polynucleotide, useful in gene therapy, particularly for treating
PT   or preventing e.g. arthritis, Crohn's disease, Alzheimer's disease and
PT   organ transplant toxicity and rejection, comprises ADAMTS
PT   polynucleotide and encoded polypeptide -
XX
PS   Example; Page 13; 31pp; English.
XX
CC   The present sequence represents a PCR primer used to screen a panel of
CC   cDNA libraries to determine a source for further cloning of novel
CC   ADAMTS genes. A PCR product that was obtained (given in ABA02549) that
CC   encodes the ADAMTS-M protein (ABB04153) that exhibits the characteristics
CC   of the ADAM (A Disintegrin And Metalloprotease) family of
CC   metalloproteases, and contains a thrombospondin domain (TS). The
CC   specification describes a newly isolated polynucleotide, comprising a
CC   nucleotide sequence encoding an ADAMTS-M polypeptide as given in the
CC   specification, or a metalloproteinase, disintegrin domain, prodomain or
CC   its thrombospondin submotif. The polynucleotide, polypeptide and agent
CC   are useful for manufacturing a medicament for treating a subject in need
CC   of altering activity or expression of ADAMTS-M. The polynucleotide,
CC   ADAMTS-M polypeptide and agent are useful for manufacturing a medicament
CC   for treating arthritis (osteoarthritis and rheumatoid arthritis),
CC   inflammatory bowel disease, Crohn's disease, asthma, Alzheimer's disease,
CC   organ transplant toxicity and rejection, cachexia, allergy, cancer (e.g.
CC   solid tumour cancer including colon, breast, lung, prostate, brain or
CC   haematopoietic malignancies including leukaemia and lymphoma),
CC   osteoporosis, atherosclerosis, aortic aneurysm, congestive heart failure,
CC   myocardial infarction, stroke, head trauma, spinal cord injury,
CC   neurodegenerative disease, autoimmune disorders, Huntington's disease,
CC   Parkinson's disease, migraine, pain, depression, multiple sclerosis,
CC   abnormal wound healing, burns, infertility or diabetic shock. The
CC   polynucleotide and polypeptide are also useful for diagnosing the
CC   diseases above. The polynucleotide is particularly useful in gene therapy
CC   for treating the diseases cited above.
XX
SQ   Sequence 17 BP; 6 A; 6 C; 2 G; 3 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        754 TGTGATATTTGAAGC 768
              ||||||||||| |||
Db         15 TGTGATATTTGGAGC 1


RESULT 281
ABT34735
ID   ABT34735 standard; DNA; 17 BP.
XX
AC   ABT34735;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Tumour suppression related human fukutin oligo SEQ ID No 372.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; protein chip; gene therapy; tumour suppression;
KW   human fukutin; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003025175-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB04208.
XX
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-313353/30.
XX
PT   New isolated nucleic acid, useful for treating viral diseases
PT   associated with tumors and cell degeneration, also related
PT   polypeptides, antibodies and transfected cells  -
XX
PS   Disclosure; Page 77; 720pp; French.
XX
CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC   given in the specification, a sequence containing at least 15
CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC   sequence that hybridizes to them under highly stringent conditions, or
CC   the complement of any of them, or the corresponding RNA. The novel
CC   isolated nucleic acids of the invention are useful as probes and primers
CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC   and for production of recombinant polypeptides. Any of the nucleic acids,
CC   polypeptides, vectors containing the nucleic acids, cells containing the
CC   vector or antibodies directed against the polypeptides are useful for
CC   preparation of pharmaceuticals for prevention and/or treatment of viral
CC   diseases that are characterised by development of tumours or cell
CC   degeneration, specifically cancer but also Alzheimer's disease and
CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC   patient samples is useful for diagnosis and/or prognosis of these
CC   diseases. The polypeptides can also be used to generate antibodies, and
CC   both the polypeptide and antibodies are useful as components of protein
CC   chips. The nucleic acid sequences of the invention can be used in gene
CC   therapy. This polynucleotide sequence represents a tumour suppression
CC   related human fukutin oligonucleotide of the invention.
XX
SQ   Sequence 17 BP; 8 A; 3 C; 3 G; 3 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        534 TCAGTAAACAATGAA 548
              |||||| ||||||||
Db          3 TCAGTACACAATGAA 17


RESULT 282
ABT35038/c
ID   ABT35038 standard; DNA; 17 BP.
XX
AC   ABT35038;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Tumour suppression related human fukutin oligo SEQ ID No 675.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; protein chip; gene therapy; tumour suppression;
KW   human fukutin; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003025175-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB04208.
XX
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
```

PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases
PT associated with tumors and cell degeneration, also related
PT polypeptides, antibodies and transfected cells -
XX
PS Disclosure; Page 113; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15
CC consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC sequence that hybridizes to them under highly stringent conditions, or
CC the complement of any of them, or the corresponding RNA. The novel
CC isolated nucleic acids of the invention are useful as probes and primers
CC for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC and for production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention.
XX
SQ Sequence 17 BP; 9 A; 1 C; 3 G; 4 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1237 ATTTTCATTTCAGAT 1251
||||| |||||||||
Db 16 ATTTTTATTTCAGAT 2

RESULT 283
ABT39610
ID ABT39610 standard; DNA; 17 BP.
XX
AC ABT39610;
XX
DT 12-JUN-2003 (first entry)
XX
DE Tumour suppression related human fukutin oligo SEQ ID No 5247.
XX
KW Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW schizophrenia; protein chip; gene therapy; tumour suppression;
KW human fukutin; ds.
XX
OS Homo sapiens.
XX
PN WO2003025175-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-IB04208.
XX
PR 17-SEP-2001; 2001FR-0011978.
XX
PA (MOLE-) MOLECULAR ENGINES LAB.
XX
PI Telerman A, Amson R, Tuijnder M;
XX
DR WPI; 2003-313353/30.
XX
PT New isolated nucleic acid, useful for treating viral diseases
PT associated with tumors and cell degeneration, also related
PT polypeptides, antibodies and transfected cells -
XX
PS Disclosure; Page 647; 720pp; French.
XX
CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC given in the specification, a sequence containing at least 15
CC consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC sequence that hybridizes to them under highly stringent conditions, or
CC the complement of any of them, or the corresponding RNA. The novel
CC isolated nucleic acids of the invention are useful as probes and primers
CC for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC and for production of recombinant polypeptides. Any of the nucleic acids,
CC polypeptides, vectors containing the nucleic acids, cells containing the
CC vector or antibodies directed against the polypeptides are useful for
CC preparation of pharmaceuticals for prevention and/or treatment of viral
CC diseases that are characterised by development of tumours or cell
CC degeneration, specifically cancer but also Alzheimer's disease and
CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC patient samples is useful for diagnosis and/or prognosis of these
CC diseases. The polypeptides can also be used to generate antibodies, and
CC both the polypeptide and antibodies are useful as components of protein
CC chips. The nucleic acid sequences of the invention can be used in gene
CC therapy. This polynucleotide sequence represents a tumour suppression
CC related human fukutin oligonucleotide of the invention.
XX
SQ Sequence 17 BP; 6 A; 1 C; 2 G; 8 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 3.3e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1149 TTATTTTAGATATTA 1163
|| ||||||||||||||
Db 3 TCATTTTAGATATTA 17

RESULT 284
ABZ61156
ID ABZ61156 standard; RNA; 17 BP.
XX
AC ABZ61156;
XX
DT 21-MAR-2003 (first entry)
XX
DE Human K-Ras DNAzyme substrate #1268.
XX
KW Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW anti-rheumatic; cancer; AIDS; ss.
XX
OS Homo sapiens.
XX
PN WO200297114-A2.
XX
PD 05-DEC-2002.
XX
PF 29-MAY-2002; 2002WO-US16840.
XX
PR 29-MAY-2001; 2001US-294140P.
PR 06-JUN-2001; 2001US-296249P.
PR 10-SEP-2001; 2001US-318471P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Mcswiggen J;
XX
DR WPI; 2003-140484/13.

```
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences  -
XX
PS   Claim 58; Page 109; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and
CC   anti-rheumatic activity. The nucleic acid molecules are useful for
CC   reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic
CC   acids are also useful for treating breast, ovarian, colorectal, lung,
CC   prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS.
CC   The sequences shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531,
CC   ABZ66520 - ABZ66524, ABZ66530 - ABZ66585 represent substrate/target
CC   sequences for the human ribozymes of the invention.
XX
SQ   Sequence 17 BP; 4 A; 2 C; 0 G; 11 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   26.7%;  Pred. No. 3.3e+02;
  Matches    4;  Conservative    10;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1043 ATTATTTATGTATTT 1057
              |::|:::|: :|:::
Db          2 AUUAUUUAUUUAUUU 16


RESULT 285
ABZ62202/c
ID   ABZ62202 standard; RNA; 17 BP.
XX
AC   ABZ62202;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human H-Ras DNAzyme target #993.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US16840.
XX
PR   29-MAY-2001; 2001US-294140P.
PR   06-JUN-2001; 2001US-296249P.
PR   10-SEP-2001; 2001US-318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences  -
XX
PS   Claim 58; Page 132; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and
CC   anti-rheumatic activity. The nucleic acid molecules are useful for
CC   reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic
CC   acids are also useful for treating breast, ovarian, colorectal, lung,
CC   prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS.
CC   The sequences shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531,
CC   ABZ66520 - ABZ66524, ABZ66530 - ABZ66585 represent substrate/target
CC   sequences for the human ribozymes of the invention.
XX
SQ   Sequence 17 BP; 7 A; 2 C; 7 G; 1 U; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 3.3e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1332 TCCCAGTCTTGTCAT 1346
              ||||||||||||| |
Db         15 TCCCAGTCTTGTCCT 1


RESULT 286
AAA63708
ID   AAA63708 standard; DNA; 18 BP.
XX
AC   AAA63708;
XX
DT   04-DEC-2000  (first entry)
XX
DE   PCR primer used to amplify a fragment of the FRI locus.
XX
KW   H51; one locus-FRIGIDA; FRI gene; flowering time; blotting;
KW   flower initiation; stem elongation; flower production; PCR primer; ss.
XX
OS   Arabidopsis sp.
XX
PN   WO200046358-A2.
XX
PD   10-AUG-2000.
XX
PF   25-JAN-2000; 2000WO-GB00197.
XX
PR   05-FEB-1999;   99GB-0002660.
XX
PA   (PLAN-) PLANT BIOSCIENCE LTD.
XX
PI   Johanson U,  West J,  Dean C;
XX
DR   WPI; 2000-532899/48.
XX
PT   New nucleic acid derived from the FRI locus of a plant, e.g.
PT   Arabidopsis, encoding a polypeptide capable of specifically altering
PT   the flowering time of a plant -
XX
PS   Example 2; Page 43; 73pp; English.
XX
CC   PCR primers AAA63688-A63724 were used to amplify a fragment of the (late
CC   flowering) H51 FRI (one locus-FRIGIDA) locus of Arabidopsis. The
CC   FRI gene encodes a polypeptide capable of specifically altering the
CC   flowering time of a plant. The FRI polynucleotide is used to transform
CC   plants, so that the flowering time of a plant is altered. This is used,
CC   for example, for plants in which the leaves or tubers are a commercial
CC   product, where it is desirable to avoid 'blotting' (initiation of
CC   flowers and stem elongation) at too early a stage. Conversely, it may
CC   be desirable to alter flowering under certain circumstances e.g. to vary
CC   flower production across the seasons.
XX
SQ   Sequence 18 BP; 3 A; 4 C; 3 G; 8 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 18;
  Best Local Similarity   93.3%;  Pred. No. 3.5e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1545 TTTTATGTGCTCTCC 1559
```

```
                    ||| ||||||||||
Db          4 TTTGATGTGCTCTCC 18


RESULT 287
AAZ35889
ID   AAZ35889 standard; DNA; 18 BP.
XX
AC   AAZ35889;
XX
DT   03-FEB-2000  (first entry)
XX
DE   Human sentrin phosphorothioate antisense oligonucleotide SEQ ID NO:31.
XX
KW   Human; sentrin; antisense oligonucleotide; phosphorothioate;
KW   inhibition; modulation; expression; diagnosis; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1..18
FT                    /*tag=  a
FT                    /note= "phosphorothioate linkages"
XX
PN   US5985664-A.
XX
PD   16-NOV-1999.
XX
PF   17-DEC-1998;   98US-0213768.
XX
PR   17-DEC-1998;   98US-0213768.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baker BF,  Cowsert LM;
XX
DR   WPI; 2000-022284/02.
XX
PT   Antisense compound which modulates human sentrin expression, useful for
PT   treating diseases associated with sentrin expression -
XX
PS   Example 15; Column 38; 29pp; English.
XX
CC   The present invention describes an antisense compound (I) 8-30
CC   nucleotides long targeted to a nucleic acid molecule encoding human
CC   sentrin. The antisense compound comprises a phosphorothioate antisense
CC   oligonucleotide which inhibits expression of human sentrin. (I) is
CC   useful for inhibiting expression of sentrin in human cells or tissues
CC   in vitro, for treating humans or other animals suspected of having or
CC   being prone to a disease associated with sentrin expression. (I) can
CC   also be used for research or diagnostic purposes. The present
CC   sequence represents a human sentrin phosphorothioate antisense
CC   oligonucleotide from the present invention.
XX
SQ   Sequence 18 BP; 8 A; 4 C; 1 G; 5 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 18;
  Best Local Similarity   93.3%;  Pred. No. 3.5e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1179 GATAAATTTCAATCA 1193
              |||||| ||||||||
Db          1 GATAAACTTCAATCA 15


RESULT 288
AAF92967
ID   AAF92967 standard; DNA; 18 BP.
XX
AC   AAF92967;
XX
DT   17-MAY-2001  (first entry)
XX
DE   Wild type sequence for ABC1 polymorphic site #28.
XX
KW   High density lipoprotein-cholesterol; HDL-C; cardiovascular; ABC1; ds.
XX
OS   Homo sapiens.
XX
PN   WO200115676-A2.
XX
PD   08-MAR-2001.
XX
PF   01-SEP-2000; 2000WO-IB01492.
XX
PR   01-SEP-1999;   99US-0151977.
PR   15-MAR-2000; 2000US-0526193.
PR   23-JUN-2000; 2000US-0213958.
XX
PA   (UYBR-) UNIV BRITISH COLUMBIA.
PA   (XENO-) XENON GENETICS INC.
XX
PI   Hayden MR,  Brooks-Wilson AR,  Pimstone SN,  Clee SM;
XX
DR   WPI; 2001-244356/25.
XX
PT   Treating a lower than normal high density lipoprotein-cholesterol
PT   (HDL-C) level, a higher than normal triglyceride level, or a
PT   cardiovascular disease, by administering a compound that modulates LXR-
PT   or RXR-mediated transcriptional activity -
XX
PS   Disclosure; Fig 4; 317pp; English.
XX
CC   The present invention relates to a method for treating a patient
CC   diagnosed as having a lower than normal high density
CC   lipoprotein-cholesterol (HDL-C) level, a higher than normal
CC   triglyceride level, or a cardiovascular disease, involving
CC   administering a compound that modulates LXR- or RXR-mediated
CC   transcriptional activity or ABC1 expression or activity.
CC   The LXR gene product may be used in an assay to identify
CC   compounds useful for the treatment of a disease or condition selected a
CC   lower than normal HDL cholesterol level, a higher than normal
CC   triglyceride level, and a cardiovascular disease.
XX
SQ   Sequence 18 BP; 10 A; 1 C; 5 G; 2 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 18;
  Best Local Similarity   93.3%;  Pred. No. 3.5e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        705 AAGAGAATATCCGAA 719
              |||||||||| |||
Db          2 AAGAGAATATCAGAA 16


RESULT 289
ABS67982
ID   ABS67982 standard; DNA; 18 BP.
XX
AC   ABS67982;
XX
DT   29-NOV-2002  (first entry)
XX
DE   PAF-AH DNA related oligonucleotide #20.
XX
KW   Yeast; platelet activating factor acetylhydrolase; PAF-AH; ss;
KW   diabetes mellitus; antidiabetic.
XX
OS   Saccharomyces cerevisiae.
XX
PN   US2002102231-A1.
XX
PD   01-AUG-2002.
XX
PF   31-JAN-2001; 2001US-0774414.
```

```
XX
PR   07-MAY-1999;   99US-0306970.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Dietsch GN,  Peterman GM,  Yu AS;
XX
DR   WPI; 2002-673986/72.
XX
PT   Preventing diabetes mellitus comprises administering a platelet
PT   activating factor acetylhydrolase product to a subject at risk of
PT   developing the disease -
XX
PS   Disclosure; Page 14; 22pp; English.
XX
CC   The invention relates to a method for preventing diabetes mellitus
CC   comprising administering a platelet activating factor acetylhydrolase
CC   (PAF-AH) product to a subject at risk of developing diabetes mellitus.
CC   The method is also used to slow the progression of diabetes mellitus in a
CC   patient suffering from the disease. This sequence represents a
CC   Saccharomyces cerevisiae PAF-AH DNA related oligonucleotide.
XX
SQ   Sequence 18 BP; 4 A; 1 C; 4 G; 9 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 18;
  Best Local Similarity   93.3%;  Pred. No. 3.5e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1282 ATTATTGTTTATCTG 1296
              ||||||| |||||||
Db          3 ATTATTGGTTATCTG 17


RESULT 290
AAT66013/c
ID   AAT66013 standard; DNA; 19 BP.
XX
AC   AAT66013;
XX
DT   25-MAR-2003  (updated)
DT   18-JUN-1997  (first entry)
XX
DE   Primer #2 to amplify repeat sequence marker Mfd108.
XX
KW   Polymorphism; repeat sequence; genetic marker; primer; amplification;
KW   PCR; polymerase chain reaction; paternity; maternity; human; pedigree;
KW   linkage analysis; genetic disease; animal; plant; breeding; locus;
KW   hybridisation; chromosome; ds.
XX
OS   Synthetic.
XX
PN   US5582979-A.
XX
PD   10-DEC-1996.
XX
PF   04-APR-1994;   94US-0222177.
XX
PR   05-SEP-1991;   91US-0754351.
PR   21-APR-1989;   89US-0341562.
PR   04-APR-1994;   94US-0222177.
XX
PA   (MARS-) MARSHFIELD CLINIC.
XX
PI   Weber JL;
XX
DR   WPI; 1997-042299/04.
XX
PT   Detection of polymorphic genetic markers of the form
PT   (dC-dA)n(dG-dT)n - using novel nucleic acid mols. as primers
XX
PS   Claim 7; Column 13-14; 186pp; English.
XX
CC   The invention relates to the isolation of polymorphic repeat sequences
CC   having the sequence (dC-dA)n.(dG-dT)n which can be used as genetic
CC   markers.  Primers based on these sequences can be used to detect these
CC   repeats, especially for use in e.g paternity or maternity testing,
CC   human genetic analysis such as linkage analysis of genetic disease,
CC   commercial animal or plant breeding or pedigree analysis.  Clones
CC   containing the repeat sequences were isolated by hybridisation of
CC   chromosome-specific phage libraries with a synthetic poly(dC-dA).(dG-dT)
CC   probe.  Over 100 repeat blocks were isolated.  The primers
CC   AAT65798-T66047 were used to PCR amplify the inserts from the isolated
CC   clones containing the repeat sequences.  The primers AAT66012-3 were used
CC   to amplify the repeat sequence marker clone Mfd108 (AAT65779).
CC   (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 19 BP; 4 A; 10 C; 1 G; 4 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        957 AGTGATGTTGTGAGG 971
              ||||||| ||||||
Db         17 AGTGATGTGGTGAGG 3


RESULT 291
AAX02160
ID   AAX02160 standard; DNA; 19 BP.
XX
AC   AAX02160;
XX
DT   23-APR-1999  (first entry)
XX
DE   Human IVS17 3'-acceptor splice site PCR primer #8.
XX
KW   IVS17 acceptor splice site; PCR primer; detection; base-pair mutation;
KW   heteroduplex; homoduplex; migration; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5874212-A.
XX
PD   23-FEB-1999.
XX
PF   06-JUN-1995;   95US-0468551.
XX
PR   06-JUN-1995;   95US-0468551.
PR   13-MAY-1993;   93US-0061574.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Ganguly A,  Prockop DJ,  Rock MJ;
XX
DR   WPI; 1999-179967/15.
XX
PT   Detection of nucleic acid mutations - by electrophoresis in
PT   polyacrylamide gel that distinguishes heteroduplexes from
PT   homoduplexes
XX
PS   Disclosure; Column 5; 16pp; English.
XX
CC   AAX02153-X02161 are primers used in a method for detecting one or more
CC   base-pair mutations in a nucleic acid sequence by differentiating
CC   heteroduplexes from homoduplexes. The method involves generating
CC   homoduplexes and heteroduplexes in a sample and performing gel
CC   electrophoresis on the sample using a polyacrylamide gel that causes
CC   heteroduplexes to migrate more slowly than homoduplexes. The gel
CC   comprises 3-20% polyacrylamide, 1-50% of at least one denaturing agent
CC   selected from aliphatic alcohols, cyclic alcohols, alicyclic compounds,
CC   amides, ureas and carbamates, 10-100 mM borate-free TE [Tris-HCl, EDTA]
CC   buffer, and 10-100 mM taurine. The method has a high reliability and
CC   can be improved by allowing for the presence of the mutations in
CC   domains with high melting temperatures. These primers can specifically
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CC   detect a mutation in the human IVS17 3'-acceptor splice site.
XX
SQ   Sequence 19 BP; 8 A; 3 C; 6 G; 2 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        818 GCTGGAAATCCTGGA 832
              ||||||| ||||||
Db          1 GCTGGAAAACCTGGA 15


RESULT 292
AAZ70613
ID   AAZ70613 standard; DNA; 19 BP.
XX
AC   AAZ70613;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human biallelic marker upstream amplification primer SEQ ID NO:4969.
XX
KW   Human genome; biallelic marker; high density disequilibrium map;
KW   genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW   haplotyping; hybridisation; identification; characterisation;
KW   amplification; single nucleotide polymorphism; SNP; PCR primer;
KW   diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954500-A2.
XX
PD   28-OCT-1999.
XX
PF   21-APR-1999;   99WO-IB00822.
XX
PR   21-APR-1998;   98US-0082614.
PR   23-NOV-1998;   98US-0109732.
XX
PA   (GEST ) GENSET.
XX
PI   Cohen D,  Blumenfeld M,  Chumakov I;
XX
DR   WPI; 2000-013267/01.
XX
PT   Novel biallelic markers used to construct a high density disequilibrium
PT   map of the human genome  -
XX
PS   Claim 8; Page 1290; 2745pp; English.
XX
CC   AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC   invention, which contain a polymorphic base at position 24 of their
CC   nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC   primers for the biallelic markers. The biallelic markers of the
CC   invention have a variety of uses: they can be used for high density
CC   mapping of the human genome, and in complex association studies and
CC   haplotyping studies which are useful in determining the genetic basis
CC   for disease states. Compositions and methods of the invention can also
CC   be useful for the identification of the targets for the development of
CC   pharmaceutical agents and diagnostic methods, as well as the
CC   characterisation of the differential efficacious responses to and side
CC   effects from pharmaceutical agents acting on a disease as well as other
CC   treatment.
CC   N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297
CC   and 3367, are not actually given a sequence in the Sequence Listing
CC   from the present invention.
XX
SQ   Sequence 19 BP; 2 A; 5 C; 2 G; 10 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1567 TTTTACTGTTTCTGA 1581
              ||||||||||||| |
Db          1 TTTTACTGTTTCTCA 15


RESULT 293
AAA84233/c
ID   AAA84233 standard; DNA; 19 BP.
XX
AC   AAA84233;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Cyclin C ribozyme binding site #205.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic;
KW   restenosis; ss.
XX
OS   Mammalia.
XX
PN   WO200032765-A2.
XX
PD   08-JUN-2000.
XX
PF   06-DEC-1999;   99WO-US28772.
XX
PR   04-DEC-1998;   98US-0110954.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Tritz R,  Welch PJ,  Barber JR,  Robbins JM;
XX
DR   WPI; 2000-412314/35.
XX
PT   New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT   RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT   PCNA and Cyclin B1  -
XX
PS   Disclosure; Page 74; 109pp; English.
XX
CC   The present invention relates to a hairpin or hammerhead ribozyme,
CC   designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC   other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC   Representative examples of ribozyme recognition sites are given in
CC   AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC   inhibiting restenosis by introduction of the ribozyme into cells.
CC   The ribozyme is resistant to endonuclease activity and hence is
CC   efficient in restenosis treatment.
XX
SQ   Sequence 19 BP; 8 A; 3 C; 4 G; 4 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        913 TTTATTTCTAAGTGG 927
              ||||||| ||||||
Db         19 TTTATTTCCAAGTGG 5


RESULT 294
AAZ89251/c
ID   AAZ89251 standard; DNA; 19 BP.
XX
AC   AAZ89251;
XX
DT   09-JUN-2000  (first entry)
XX
DE   Rat adenosine receptor 2a forward PCR primer.
XX
KW   Rat; expression profile; Three Prime End Amplification; TPEA;
KW   adenosine receptor 2a; PCR primer; ss.
```

```
XX
OS   Rattus sp.
XX
PN   WO200008208-A2.
XX
PD   17-FEB-2000.
XX
PF   05-AUG-1999;   99WO-GB02579.
XX
PR   05-AUG-1998;   98GB-0017055.
XX
PA   (MEDI-) MEDICAL RES COUNCIL.
XX
PI   Freeman TC,  Richardson PJ,  Dixon AK;
XX
DR   WPI; 2000-224033/19.
XX
PT   Reverse transcription of mRNA species used for expression profiling of
PT   single cells by employing a first heeled primer to provide first strand
PT   cDNA species and then a second heeled primer population to generate
PT   second strand cDNAs  -
XX
PS   Example 1; Page 30; 50pp; English.
XX
CC   This invention describes a novel process (M1) of reverse transcribing
CC   mRNA species present in a sample from an organism by: (a) reverse
CC   transcribing the mRNA species using a first heeled primer, to provide a
CC   first strand cDNA species; and (b) synthesizing second cDNA species
CC   using a second heeled primer population, the nucleotide sequences of the
CC   non-heel portions of the second heeled primers being such that the
CC   reverse transcribed first strand cDNA species are capable of hybridizing
CC   to at least one second primer. The processes can be used for expression
CC   profiling of single cells. The polynucleotide comprising an oligo d(T)
CC   sequence and a heel sequence 5' can be used for the reverse
CC   transcription of mRNA species in a sample. The polynucleotide primer
CC   population of claim (4) can be used for the synthesis of second strand
CC   cDNA from a population of first strand cDNA species. Single cell cDNA
CC   libraries can be made for subsequent detailed analysis of gene expression
CC   and the discovery of novel genes. Small samples can be used and allow
CC   the utilization of the large amount of sequence data available for
CC   further understanding of disease processes and the cellular physiology of
CC   complex issues. The invention provides a rapid, robust and reproducible
CC   procedure called Three Prime End Amplification (TPEA), optionally with
CC   PCR (TPEA-PCR). Prior art methods for the analysis of gene expression
CC   within single cells or small tissue samples are limiting. Whilst in situ
CC   hybridization techniques provide detailed information about the
CC   cellular expression pattern of a gene in intact tissue the technique is
CC   laborious and unable to analyze multiple transcripts in a single
CC   preparation. The methods presented in the disclosure provide a more
CC   straightforward, reproducible and reliable cDNA amplification procedure
CC   for small mRNA samples where expression profiling can be conducted. The
CC   amplification technique can be carried out in a single tube with a need
CC   for only limited manual intervention and large numbers of samples can
CC   be analyzed. There is a bias towards more uniform length cDNA molecules
CC   ensuring that even relatively low abundance mRNA species are transcribed
CC   and optionally amplified at the same level of efficiency as more
CC   abundant mRNA species. AAZ89191-Z89253 represent the primers described in
CC   the method of the invention.
XX
SQ   Sequence 19 BP; 6 A; 6 C; 4 G; 3 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1348 GCCAGCTGTGTTGGT 1362
              ||||||| |||||||
Db         19 GCCAGCTTTGTTGGT 5


RESULT 295
AAH90994
ID   AAH90994 standard; DNA; 19 BP.
XX
AC   AAH90994;
XX
DT   09-OCT-2001  (first entry)
XX
DE   Human inflammatory bowel disease associated polymorphic site #69.
XX
KW   Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
KW   single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
KW   chromosome 5q31-33; forensic test; gene therapy; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    11
FT                   /*tag=  a
FT                   /note= "SNP, optionally A or T at this position"
XX
PN   WO200142511-A2.
XX
PD   14-JUN-2001.
XX
PF   11-DEC-2000; 2000WO-US33632.
XX
PR   10-DEC-1999;   99US-0170257.
PR   10-APR-2000; 2000US-0196046.
XX
PA   (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA   (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
XX
PI   Daly M,  Hudson TJ,  Lander ES,  Rioux J,  Siminovitch K;
XX
DR   WPI; 2001-367874/38.
XX
PT   Testing for the presence of polymorphisms associated with inflammatory
PT   bowel disease, using a hybridization assay -
XX
PS   Claim 1; Page 42; 463pp; English.
XX
CC   The present invention describes a method for detecting the presence of
CC   polymorphisms associated with inflammatory bowel diseases such as
CC   ulcerative colitis and Crohn's disease. The methods can be used to detect
CC   the presence of genetic polymorphisms associated with inflammatory bowel
CC   disease and correlating their occurrence with disease states. They may be
CC   used in this way for phenotypic correlations, forensics, paternity
CC   testing, medicine and genetic analysis. The present sequence is a
CC   polymorphic site described in the exemplification of the invention.
XX
SQ   Sequence 19 BP; 5 A; 0 C; 1 G; 12 T; 1 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   87.5%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1140 AAATTTATTTTATTTT 1155
              ||||||| ||| ||||
Db          4 AAATTTANTTTTTTTT 19


RESULT 296
AAH56758/c
ID   AAH56758 standard; DNA; 19 BP.
XX
AC   AAH56758;
XX
DT   06-SEP-2001  (first entry)
XX
DE   S. aureus groE operon antisense oligonucleotide SEQ ID NO:406.
XX
KW   Antisense oligonucleotide; groE; groEL; groES; inhibitor; growth;
KW   microorganism; Escherichia coli; Streptococcus pneumoniae; diagnosis;
KW   Streptococcus pyogenes; Staphylococcus aureus; Pseudomonas aeruginosa;
KW   antibacterial; antiviral; antiproliferative; antisense therapy;
```

KW microbial infection; ss.
XX
OS Staphylococcus aureus.
XX
PN WO200136625-A2.
XX
PD 25-MAY-2001.
XX
PF 20-NOV-2000; 2000WO-CA01347.
XX
PR 18-NOV-1999; 99US-0166249.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH, Dugourd D;
XX
DR WPI; 2001-355633/37.
XX
PT Novel antisense compounds targeting nucleic acid encoding groEL or
PT groES gene of microorganism, which hybridize with and inhibit
PT expression of the genes, useful to inhibit growth of microorganism
PT having the genes -
XX
PS Claim 3; Page 52; 110pp; English.
XX
CC The present invention specifically claims AAH56368 to AAH56832 which are
CC antisense oligonucleotides to nucleotide sequences encoding groE. More
CC generally, antisense compounds (I) comprising antisense oligonucleotides
CC of 5-50 bases targeted to a nucleotide sequence encoding groEL (heat
CC shock protein (HSP)60) (GL) and groES (HSP10) (GS) gene from a
CC microorganism, where the antisense compound is complementary to GL or
CC GS of a microorganism and specifically hybridises with and inhibits the
CC expression of GL or GS, is claimed. (I) have antibacterial, antiviral
CC and antiproliferative activities, and can be used in antisense therapy
CC and for inhibition of expression of groES or groEL. (I) are useful for
CC inhibiting expression of GL or GS in cells or tissues in vitro. (I) are
CC also useful for inhibiting the growth of a microorganism, or inhibiting
CC the expression of GL or GS gene in a microorganism (a bacterial cell or
CC a virus) having a GL or GS gene which involves administering to the
CC microorganism or to a cell infected with the microorganism, (I). (I) are
CC also useful for treating a mammalian pathological condition mediated by
CC the microorganisms which involves identifying a eukaryotic organism
CC having a pathological condition mediated by microorganisms having a GL
CC or GS gene and administering (I) such that the growth of microorganism
CC is inhibited. The antisense compounds are utilised for diagnostics,
CC therapeutics, prophylaxis and as research reagents and kits, e.g., to
CC prevent or delay microbial infections in humans. They are also useful as
CC molecular weight markers. AAH56362 to AAH56367 and AAH56833 to AAH56854
CC represent PCR primers for groE sequences which are used in the
CC exemplification of the present invention. AAH56855 to AAH56870 represent
CC groE nucleotide sequence given in the present invention.
XX
SQ Sequence 19 BP; 6 A; 1 C; 0 G; 12 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 19;
Best Local Similarity 93.3%; Pred. No. 3.6e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1591 AATATAAAAGTAAAT 1605
||||||||| |||||
Db 15 AATATAAAATTAAAT 1

RESULT 297
AAH59395/c
ID AAH59395 standard; DNA; 19 BP.
XX
AC AAH59395;
XX
DT 10-SEP-2001 (first entry)
XX
DE Cyclin C ribozyme binding site SEQ ID NO:1819.
XX

KW Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW sickle cell retinopathy; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200130362-A2.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US29500.
XX
PR 26-OCT-1999; 99US-0161532.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Robbins JM, Tritz R;
XX
DR WPI; 2001-300427/31.
XX
PT Treating proliferative skin or eye diseases and scarring, using
PT ribozymes that cleave RNA encoding cytokines involved in inflammation,
PT matrix metalloproteinases, growth factors and cell-cycle dependent
PT kinases -
XX
PS Example 1; Page 204; 408pp; English.
XX
CC The present invention describes a method for treating a proliferative
CC skin or eye disease and scarring. The method involves administering a
CC ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC dependent kinase, growth factor or a reductase, or administering a
CC nucleic acid molecule (II) comprising a promoter operably linked to a
CC nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC ophthalmological, vulnerary, keratolytic and virucide activities, and
CC cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC in gene therapy. (I) and (II) are useful for treating proliferative
CC skin diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC also be used for treating proliferative eye diseases such as diabetic
CC retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC prematurity and retinal detachment, and for treating and preventing
CC scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC scar. AAH57577 to AAH62099 represent sequences used in the
CC exemplification of the present invention.
XX
SQ Sequence 19 BP; 8 A; 3 C; 4 G; 4 T; 0 other;

Query Match 1.1%; Score 13.4; DB 1; Length 19;
Best Local Similarity 93.3%; Pred. No. 3.6e+02;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 913 TTTATTTCTAAGTGG 927
||||||| ||||||
Db 19 TTTATTTCCAAGTGG 5

RESULT 298
AAF57945/c
ID AAF57945 standard; DNA; 19 BP.
XX
AC AAF57945;
XX
DT 20-APR-2001 (first entry)

```
XX
DE   Low abundance nucleic acid amplification PCR primer #16.
XX
KW   Nucleic acid amplification; low abundance sequence; expression profiling;
KW   high throughput analysis; PCR primer; ss.
XX
OS   Synthetic.
XX
PN   WO200106004-A2.
XX
PD   25-JAN-2001.
XX
PF   19-JUL-2000; 2000WO-EP06887.
XX
PR   19-JUL-1999;   99US-0144666.
XX
PA   (UYCA-) UNIV CAMBRIDGE TECH SERVICES.
XX
PI   Richardson P,  Cox P;
XX
DR   WPI; 2001-138470/14.
XX
PT   Increasing the number of nucleotide sequences for low quantity mRNA
PT   species from a sample for detection and cloning of gene sequences -
XX
PS   Example 1; Page 110; 120pp; English.
XX
CC   The present invention describes methods of increasing the number of
CC   nucleic acid sequences corresponding to an mRNA present in a sample using
CC   heeled primer sequences in amplification reactions. This is useful in the
CC   detection and cloning of low copy number mRNAs in a sample, in expression
CC   profiling and in high throughput systems.
XX
SQ   Sequence 19 BP; 6 A; 6 C; 4 G; 3 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1348 GCCAGCTGTGTTGGT 1362
              ||||||| |||||||
Db         19 GCCAGCTTTGTTGGT 5


RESULT 299
ABS97159
ID   ABS97159 standard; DNA; 19 BP.
XX
AC   ABS97159;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Human CYP4501A2 Exon 3 PCR primer #2.
XX
KW   Human; ss; primer; cytochrome P450 A1; CYP4501A1; UGT2B4; MDR1; PCR;
KW   cytochrome P450 A2; CYP4501A2; cytochrome P450 02E; CYP45002E1; LTF;
KW   adrenergic receptor beta1; ADBR1; aryl hydrocarbon; AHR; MRP3; NR1I2;
KW   aryl hydrocarbon receptor nuclear translocator; ARNT; cathepsin S; CTSS;
KW   cyclooxgenase 2; COX2; diazepam binding inhibitor; DBI; haematological;
KW   epoxide hydroxylase 2; EPHX2; 5-lipoxygenase activating protein; FLAP;
KW   glutathione-S-transferase 12; GST12; histamine-N-methyl transferase;
KW   HNMT; kallikrein 2; KLK2; nicotinamide-N-methyl transferase; NNMT;
KW   NADPH quinone oxidoreductase 2; NQO2; sulfotransferase thermolabile;
KW   STM; UDP-glucuronosyl transferase 2B4; UDP-glucuronosyl transferase 2B7;
KW   UGT2B7; UDP-glucuronosyl transferase; UGT2B15; urokinase receptor; uPA;
KW   multidrug resistance 1; lactotransferrin; orphan nuclear receptor;
KW   multidrug resistance associated protein 3; cancer; prostate;
KW   acetylcholine muscarinic receptor; CHMR1; CHMR2; CHMR3; CHMR4; CHMR5;
KW   altered drug metabolism; cardiovascular function; colorectal tumour;
KW   central nervous system; pulmonary; immunological.
XX
OS   Homo sapiens.
XX
PN   WO200257410-A2.
XX
PD   25-JUL-2002.
XX
PF   28-NOV-2001; 2001WO-US44838.
XX
PR   28-NOV-2000; 2000US-0724389.
XX
PA   (DNAS-) DNA SCI LAB INC.
XX
PI   Guida M,  Hall J;
XX
DR   WPI; 2002-698522/75.
XX
PT   Isolated nucleic acid molecules having polymorphisms in known human
PT   genes e.g. cytochrome p450 and cathepsin S useful as genetic linkage
PT   markers for locating, identifying and characterizing the genes
PT   responsible for disorder-related traits  -
XX
PS   Example 2; Page 100; 714pp; English.
XX
CC   This invention relates to the sequence of an isolated nucleic acid
CC   molecule comprising at least one base variation from that of a known
CC   human cytochrome P450 A1 (CYP4501A1), cytochrome P450 A2 (CYP4501A2),
CC   cytochrome P450 02E1 (CYP45002E1), adrenergic receptor beta1 (ADBR1),
CC   aryl hydrocarbon (AHR), aryl hydrocarbon receptor nuclear translocator
CC   (ARNT), cathepsin S (CTSS), cyclooxgenase 2 (COX2), diazepam binding
CC   inhibitor (DBI), epoxide hydroxylase 2 (EPHX2), 5-lipoxygenase
CC   activating protein (FLAP), glutathione-S-transferase 12 (GST12),
CC   histamine-N-methyl transferase (HNMT), (kallikrein 2) KLK2, nicotinamide
CC   -N-methyl transferase (NNMT), NADPH quinone oxidoreductase 2 (NQO2),
CC   sulfotransferase thermolabile (STM), UDP-glucuronosyl transferase 2B4
CC   (UGT2B4), UDP-glucuronosyl transferase 2B7 (UGT2B7), UDP-glucuronosyl
CC   transferase  (UGT2B15), urokinase receptor (uPA), multidrug resistance
CC   1 (MDR1), lactotransferrin (LTF), multidrug resistance associated
CC   protein 3 (MRP3), orphan nuclear receptor (NR1I2), or acetylcholine
CC   muscarinic receptor 1, 2, 3, 4, or 5 (CHMR1, CHMR2, CHMR3, CHMR4 or
CC   CHMR5) sequence. The polymorphisms in the human genes cited in the
CC   invention are useful as genetic linkage markers for locating and
CC   characterising the genes that are responsible for specific traits within
CC   the genome and eventually identifying the genes responsible for a
CC   variety of disorder-related traits as a result of their e.g.,
CC   overexpression, constitutive expression, mutation or underexpression,
CC   which may be used in diagnosing and/or treating the disorders. The
CC   nucleic acid molecules comprising the polymorphic sequences contained
CC   in CYP4501A1, CYPP4501A2, CYP4502E1, ARNT, EPHX2, GST12, NNMT, NQO2,
CC   NR1I2, STM, UGT2B4, UGT2B7, UGT2B15, AHR, MDR1 and/or MDR3 are useful
CC   for screening individuals for altered drug metabolism. The polymorphic
CC   sequences contained in CYP4501A1, CYPP4501A2, AHR, MDR1 and/or MDR3 may
CC   also be used to screen individuals for susceptibility to cancer.
CC   Polymorphic sequences in ADRB1 or CHMR2 are used to screen for altered
CC   cardiovascular function, in COX2 for altered susceptibility to
CC   colorectal tumours, in DBI or CHMR1 for altered central nervous system
CC   function, in FLAP and HNMT for altered pulmonary, immunological or
CC   haematological function, in KLK2 for altered serine protease activity in
CC   the prostate, in LTF for altered immunological or haematological
CC   function, in CHMR3, CHMR4 or CHMR5 for altered central and peripheral
CC   nervous system function. The present sequence represents a PCR
CC   primer used to amplify the sequences of the invention.
XX
SQ   Sequence 19 BP; 3 A; 1 C; 8 G; 7 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 19;
  Best Local Similarity   93.3%;  Pred. No. 3.6e+02;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        482 TCTGTTGTAGGGTTG 496
              |||| ||||||||||
Db          2 TCTGATGTAGGGTTG 16


RESULT 300
AAL45792/c
```

```
ID   AAL45792 standard; DNA; 24 BP.
XX
AC   AAL45792;
XX
DT   28-JUN-2002  (first entry)
XX
DE   Human MGC-2413-31 coding sequence PCR primer #2.
XX
KW   Human; MGC-2413.31; cancer; haemopathy; development disorder;
KW   cytostatic; haemostatic; virucide; immunomodulatory; antiinflammatory;
KW   immune disorder; HIV infection; inflammation; gene therapy; PCR;
KW   primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200220776-A1.
XX
PD   14-MAR-2002.
XX
PF   29-JUN-2001; 2001WO-CN01088.
XX
PR   30-JUN-2000; 2000CN-0116945.
XX
PA   (SHAN-) SHANGHAI BIOWINDOW GENE DEV INC.
XX
PI   Mao Y,  Xie Y;
XX
DR   WPI; 2002-258028/30.
XX
PT   Polypeptide-MGC-2413.31 and encoding polynucleotide, used in diagnosis
PT   and treatment of malignant tumors, hemopathy, human immunodeficiency
PT   virus infection, immunological diseases and inflammation -
XX
PS   Example 2; Page 17; 34pp; Chinese.
XX
CC   The present invention provides the protein and coding sequences of human
CC   MGC-2413.31. The sequences can be used in the treatment of cancer,
CC   haemopathy, development disorders, HIV infection, immune disorders and
CC   inflammation. The present sequence is a PCR primer for the coding
CC   sequence of the invention.
XX
SQ   Sequence 24 BP; 8 A; 2 C; 1 G; 13 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 24;
  Best Local Similarity   73.9%;  Pred. No. 4.4e+02;
  Matches   17;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy       1003 TAACATAAATTATTTTCAAGTGT 1025
              ||| ||||| ||  |||||  ||
Db         23 TAAAATAAAATAAATTCAATGGT 1

RESULT 301
ABA02441/c
ID   ABA02441 standard; DNA; 24 BP.
XX
AC   ABA02441;
XX
DT   04-MAR-2002  (first entry)
XX
DE   Human CCR4 protein 10 RT-PCR primer, SEQ ID NO:3.
XX
KW   Human; CCR4 protein 10; recombinant production;
KW   malignant tumour; cancer; blood disease; HIV infection;
KW   human immunodeficiency virus; immune disorder; inflammatory condition;
KW   gene therapy; cytostatic; anti-HIV; antiinflammatory; immunomodulator;
KW   reverse transcription-PCR; RT-PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200187947-A1.
XX
PD   22-NOV-2001.
XX
PF   08-MAY-2001; 2001WO-CN00700.
XX
PR   09-MAY-2000; 2000CN-0115620.
XX
PA   (SHAN-) SHANGHAI BIOWINDOW GENE DEV INC.
XX
PI   Mao Y,  Xie Y;
XX
DR   WPI; 2002-066676/09.
XX
PT   Human CCR4 protein 10 and encoding polynucleotide, used in diagnosis
PT   and treatment of malignant tumors, hemopathy, human immunodeficiency
PT   virus infection, immunological diseases and inflammation -
XX
PS   Example 2; Page 17; 37pp; Chinese.
XX
CC   The invention relates to human CCR4 protein 10 (AAM52938), nucleic acids
CC   encoding it (ABA02440), and a method for the recombinant production of
CC   CCR4 protein 10. The protein has a molecular weight of 10 kD. The
CC   present invention additionally discloses an antagonist of CCR4 protein
CC   10 for therapeutic use, and an antibody which specifically binds to CCR4
CC   protein 10. CCR4 protein 10, and nucleotides which encode it may be used
CC   for treating a variety of diseases, such as malignant tumours, blood
CC   diseases, HIV (human immunodeficiency virus) infection, immune disorders
CC   and inflammatory conditions. The protein may also be used to screen for
CC   modulators of its activity or for peptide fingerprinting identification.
CC   The polynucleotide can be used as a primer for nucleic acid amplification
CC   reactions or as a probe for hybridisation reactions, or in producing gene
CC   chips or microarrays. Sequences ABA02441-ABA02442 represent reverse
CC   transcription-PCR (RT-PCR) primers used in an exemplification of the
CC   invention to isolate human CCR4 protein 10 cDNA.
XX
SQ   Sequence 24 BP; 5 A; 3 C; 0 G; 16 T; 0 other;

  Query Match             1.1%;  Score 13.4;  DB 1;  Length 24;
  Best Local Similarity   73.9%;  Pred. No. 4.4e+02;
  Matches   17;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy        673 AATATACAAATAGCAAAATTGGG 695
              |||| | ||||   ||| ||||
Db         23 AATAAATAAATAAATAAAATGGG 1

RESULT 302
AAQ20152
ID   AAQ20152 standard; DNA; 18 BP.
XX
AC   AAQ20152;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 702 for targetting Herpes Simplex Virus I.
XX
KW   deoxyribonucleic acid; major groove; ethanoamino group;
KW   HSV; covalent cross-linking group; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   7
```

```
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   8
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   12
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   14
FT                   /*tag=  g
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   15
FT                   /*tag=  h
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   24-MAY-1991;   91WO-1003680.
XX
PR   14-JAN-1991;   91US-0640654.
PR   25-MAY-1990;   90US-0529346.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents -
PT   bind to the major groove of duplex DNA and are esp. useful for
PT   treating latent infections e.g. HIV
XX
PS   Example 4; Page 29; 42pp; English.
XX
CC   The oligomer is designed to target Herpes Simplex Virus I
CC   beginning at nucleotide 52916 and to covalently cross-link
CC   to it. See also AAQ20151-Q20161.
XX
SQ   Sequence 18 BP; 8 A; 0 C; 0 G; 10 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1611 ACATTTAAAATATAATTT 1628
              | ||||||  ||||||||
Db          1 AAATTTAATTTATAATTT 18


RESULT 303
AAQ20160
ID   AAQ20160 standard; DNA; 18 BP.
XX
AC   AAQ20160;
XX
DT   01-APR-1992  (first entry)
XX
DE   Cross-linking oligomer 723 to target Herpes Simplex Virus I.
XX
KW   deoxyribonucleic acid; major groove; HSV;
KW   inverted polarity region; covalent cross-linking group; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   3
FT                   /*tag=  c
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   4
FT                   /*tag=  d
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   5
FT                   /*tag=  e
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   7
FT                   /*tag=  f
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   9
FT                   /*tag=  g
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   10
FT                   /*tag=  h
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   11
FT                   /*tag=  i
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   misc_feature    12..18
FT                   /*tag=  j
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   modified_base   13
FT                   /*tag=  k
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   14
FT                   /*tag=  l
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   15
FT                   /*tag=  m
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
FT   modified_base   17
FT                   /*tag=  n
FT                   /mod_base= OTHER
FT                   /note= "N-methyl-8-oxo-2'-deoxyadenine"
XX
PN   WO9118997-A.
XX
PD   12-DEC-1991.
XX
PF   24-MAY-1991;   91WO-1003680.
XX
PR   14-JAN-1991;   91US-0640654.
PR   25-MAY-1990;   90US-0529346.
XX
PA   (GILE-) GILEAD SCIE INC.
XX
PI   Matteucci MD,  Krawczyk S;
XX
DR   WPI; 1992-007480/01.
XX
PT   New sequence-specific non-photo-activated crosslinking agents -
PT   bind to the major groove of duplex DNA and are esp. useful for
```

```
PT   treating latent infections e.g. HIV
XX
PS   Example 4; Page 29; 42pp; English.
XX
CC   This oligomer contains an inverted polarity region formed from an
CC   o-xyloso dimer synthon. Residues 11 and 12 are linked via an
CC   o-xyloso group (i.e. nucleotides that have xylose sugar linked via
CC   the o-xylene ring). The sequence is designed to target the Herpes
CC   Simplex virus I beginning at nucleotide 10996 and to covalently
CC   cross-link to it. See also AAQ20151-Q20161.
XX
SQ   Sequence 18 BP; 13 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1590 AAATATAAAAGTAAATAT 1607
              ||| ||| || |||||||
Db          1 AAAAATATAAATAAATAT 18


RESULT 304
AAQ30310
ID   AAQ30310 standard; DNA; 18 BP.
XX
AC   AAQ30310;
XX
DT   25-MAR-2003  (updated)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HSV723 for forming triplex with HSV target duplex.
XX
KW   Herpes simplex virus I; AIDS; modified; HIV; RSV; HPV; malignancy;
KW   hepetitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag= a
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   2
FT                   /*tag= b
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   3
FT                   /*tag= c
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   4
FT                   /*tag= d
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   5
FT                   /*tag= e
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   7
FT                   /*tag= f
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   9
FT                   /*tag= g
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   10
FT                   /*tag= h
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   11
FT                   /*tag= i
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   13
FT                   /*tag= j
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   14
FT                   /*tag= k
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   15
FT                   /*tag= l
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   17
FT                   /*tag=  m
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   misc_feature    12..18
FT                   /*tag=  n
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   misc_feature    11.12
FT                   /*tag=  o
FT                   /note= "o-xyloso dimer synthon linkage"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US08811.
XX
PR   23-NOV-1990;   90US-0617907.
PR   18-JAN-1991;   91US-0643382.
PR   08-APR-1991;   91US-0683420.
PR   17-APR-1991;   91US-0686544.
PR   17-APR-1991;   91US-0686546.
PR   17-APR-1991;   91US-0686547.
PR   27-SEP-1991;   91US-0766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with
PT   G-C doublet in a DNA duplex, for treating and diagnosing HIV,
PT   hepatitis, herpes, malignancy and inflammation
XX
PS   Claim 12; Page 67; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at
CC   physiological pH with a purine rich target sequence by coupling
CC   into the major groove of the duplex.  The specific target sequence
CC   of this oligomer is a herpes simplex virus I duplex beginning at
CC   nucleotide 10996 contg. a purine-rich region concentrated on
CC   one chain of the duplex.  The oligomer, and others like it are useful
CC   in diagnosis and therapy of diseases characterised by specific DNA
CC   duplex targets, e.g. respiratory syncytial virus, HIV, hepatitis,
CC   herpes, malignant tumours and inflammation. The triple helices form
CC   under mild conditions thus assays may be carried  out without
CC   subjecting the test specimen to harsh conditions.  The oligomer
CC   contains an inverted polarity region formed from an o-xyloso
CC   dimer synthon.  The linking gp. is o-xyloso (nucleotides have the 3'
CC   positions of xylose sugars linked via the o-xylene ring).  Two
CC   nucleotides are coupled through a xylene residue to form the dimer
CC   synthon.  This additional modifications may render the oligomer stable
CC   to nuclease activity.  The oligomer is able to inhibit gene expression,
CC   as verified by in vitro systems.
CC   See also AAQ25452-25501 and AAQ30226-448.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
```

```
SQ   Sequence 18 BP; 13 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1590 AAATATAAAAGTAAATAT 1607
              ||| ||| || |||||||
Db          1 AAAAATATAAATAAATAT 18


RESULT 305
AAQ30302
ID   AAQ30302 standard; DNA; 18 BP.
XX
AC   AAQ30302;
XX
DT   25-MAR-2003  (updated)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HSV702 for forming triplex with HSV target duplex.
XX
KW   Herpes simplex virus; I; AIDS; modified; HIV; RSV; HPV; malignancy;
KW   hepetitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1
FT                    /*tag= a
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    2
FT                    /*tag= b
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    3
FT                    /*tag= c
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    7
FT                    /*tag= d
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    8
FT                    /*tag= e
FT                    /mod_base=   OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    12
FT                    /*tag=  f
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    14
FT                    /*tag=  g
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    15
FT                    /*tag= h
FT                    /mod_base=   OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US08811.
XX
PR   23-NOV-1990;   90US-0617907.
PR   18-JAN-1991;   91US-0643382.
PR   08-APR-1991;   91US-0683420.
PR   17-APR-1991;   91US-0686544.
PR   17-APR-1991;   91US-0686546.
PR   17-APR-1991;   91US-0686547.
PR   27-SEP-1991;   91US-0766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with
PT   G-C doublet in a DNA duplex, for treating and diagnosing HIV,
PT   hepatitis, herpes, malignancy and inflammation
XX
PS   Claim 12; Page 67; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at
CC   physiological pH with a purine rich target sequence by coupling
CC   into the major groove of the duplex.  The specific target sequence
CC   of this oligomer is a herpes simplex virus I target duplex
CC   beginning at nucleotide 52916 contg. a purine-rich region
CC   concentrated on one chain of the duplex.  The oligomer, and others
CC   like it are useful in diagnosis and therapy of diseases characterised
CC   by specific DNA duplex targets, e.g. respiratory syncytial virus, HIV,
CC   hepatitis, herpes, malignant tumours and inflammation. The triple
CC   helices form under mild conditions thus assays may be carried  out
CC   without subjecting the test specimen to harsh conditions.  The oligomer
CC   may contain an inverted polarity region formed from an o-xyloso
CC   dimer synthon.  The linking gp. is o-xyloso (nucleotides have the 3'
CC   positions of xylose sugars linked via the o-xylene ring).  Two
CC   nucleotides are coupled through a xylene residue to form the dimer
CC   synthon.  This additional modification may render the oligomer stable
CC   to nuclease activity.  The oligomer is able to inhibit gene expression,
CC   as verified by in vitro systems.
CC   See also AAQ25452-25501 and AAQ30226-448.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 18 BP; 8 A; 0 C; 0 G; 10 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1611 ACATTTAAAATATAATTT 1628
              | ||||||  ||||||||
Db          1 AAATTTAATTTATAATTT 18


RESULT 306
AAQ30368
ID   AAQ30368 standard; DNA; 18 BP.
XX
AC   AAQ30368;
XX
DT   25-MAR-2003  (updated)
DT   07-DEC-1992  (first entry)
XX
DE   Oligomer HUM beta 102 for forming triplex with IL-1 target duplex.
XX
KW   Human interleukin - 1 beta gene; herpes simplex; AIDS; modified;
KW   HIV; RSV; HPV; malignancy; hepatitis; inflammation; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    2
FT                    /*tag= a
FT                    /mod_base= OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    7
FT                    /*tag= b
FT                    /mod_base=  OTHER
FT                    /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base    10
FT                    /*tag= c
```

```
FT                   /mod_base=  OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   12
FT                   /*tag= d
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   modified_base   14
FT                   /*tag= e
FT                   /mod_base= OTHER
FT                   /note= "OTHER= N6 methyl-8-oxo 2' deoxyadenine"
FT   misc_feature    13..18
FT                   /*tag= f
FT                   /label= inverted_polarity_region
FT                   /note= "see comments"
FT   misc_feature    12..13
FT                   /*tag=  g
FT                   /note= "o-xyloso dimer synthon linkage"
XX
PN   WO9209705-A1.
XX
PD   11-JUN-1992.
XX
PF   25-NOV-1991;   91WO-US08811.
XX
PR   23-NOV-1990;   90US-0617907.
PR   18-JAN-1991;   91US-0643382.
PR   08-APR-1991;   91US-0683420.
PR   17-APR-1991;   91US-0686544.
PR   17-APR-1991;   91US-0686546.
PR   17-APR-1991;   91US-0686547.
PR   27-SEP-1991;   91US-0766733.
XX
PA   (GILE-) GILEAD SCI INC.
XX
PI   Froehler B,  Krawczyk S,  Matteucci MD,  Milligan J;
XX
DR   WPI; 1992-217083/26.
XX
PT   New oligomers contg. modified bases - which form a triplex with
PT   G-C doublet in a DNA duplex, for treating and diagnosing HIV,
PT   hepatitis, herpes, malignancy and inflammation
XX
PS   Claim 12; Page 69; 77pp; English.
XX
CC   The synthetic oligomer is capable of forming a triplex at
CC   physiological pH with a purine rich target sequence by coupling
CC   into the major groove of the duplex.   The specific target sequence
CC   of this oligomer is the human interleukin -1 beta gene beginning at
CC   nucleotide 6379 contg. a purine rich sequence concd. on one strand
CC   of the duplex.  The oligomer, and others like it are useful in
CC   diagnosis and therapy of diseases characterised by specific DNA
CC   duplex targets, e.g. HPV; HER; HIV, hepatitis B, herpes, malignant
CC   tumours and inflammation. The triple helices form under mild conditions
CC   thus assays may be carried out without subjecting the test specimen to
CC   harsh conditions.  The oligomer contains an inverted polarity region
CC   formed from an o-xyloso dimer synthon.  The linking gp. is o-xyloso
CC   (nucleotides have the 3' positions of xylose sugars linked via the
CC   o-xylene ring).  Two nucleotides are coupled through a xylene residue
CC   to form the dimer synthon.  This additional modifications may render
CC   the oligomer stable to nuclease activity.  The oligomer is able to
CC   inhibit gene expression, as verified by in vitro systems.
CC   See also AAQ25452-25501 and AAQ30226-448.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 18 BP; 5 A; 0 C; 0 G; 13 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1145 TATTTTATTTTAGATATT 1162
              ||||||||| || || ||
Db          1 TATTTTATTATATATTTT 18
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```
RESULT 307
AAV14091
ID   AAV14091 standard; DNA; 18 BP.
XX
AC   AAV14091;
XX
DT   19-MAY-1998  (first entry)
XX
DE   Probe HBPr257 for RT pol region of HBV.
XX
KW   Probe; hepatitis b virus; HBV detection; RT pol region; genetic analysis;
KW   preCore region; HBsAg region; genotype specific target;
KW   mutation detection; ss.
XX
OS   Synthetic.
OS   Hepatitis b virus.
XX
PN   WO9740193-A2.
XX
PD   30-OCT-1997.
XX
PF   21-APR-1997;   97WO-EP02002.
XX
PR   19-APR-1996;   96EP-0870053.
XX
PA   (INNO-) INNOGENETICS NV.
XX
PI   Maertens G,  Rossau R,  Stuyver L;
XX
DR   WPI; 1997-535867/49.
XX
PT   Detection and/or genetic analysis of hepatitis B virus -
PT   specifically genotype, preCore mutations, vaccine escape mutations
PT   and RT gene mutations selected by treatment with drugs
XX
PS   Claim 5; Page 32; 80pp; English.
XX
CC   This sequence represents a probe for the RT pol region of hepatitis
CC   b virus (HBV). This sequence can be used in the method of the invention
CC   for detection and/or genetic analysis of hepatitis B virus (HBV) in a
CC   sample. The method comprises: (a) optionally releasing, isolating or
CC   concentrating polynucleic acids (I) in the sample, and amplifying the
CC   relevant part of a suitable HBV gene in the sample with at least 1
CC   suitable primer pair; (b) hybridising (I) with a combination of at least
CC   2 nucleotide probes, which are applied to known locations on a solid
CC   support and hybridise specifically to mutant target sequences chosen from
CC   the HBV RT pol gene region, HBV preCore region, HBsAg region and/or HBV
CC   genotype specific target sequences, or their complements or U for T
CC   homologues; (c) detecting the hybrids formed in step (b), and inferring
CC   the HBV genotype and/or mutants present in the sample from the
CC   differential hybridisation signal(s). The composition can be used to
CC   diagnose and/or monitor HBV mutants and/or genotypes in a sample,
CC   specifically genotype, preCore mutations, vaccine escape mutations and
CC   RT gene mutations selected by treatment with drugs, e.g. lamivudune and
CC   penciclovir.
XX
SQ   Sequence 18 BP; 7 A; 0 C; 4 G; 7 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1123 TATAAAGATGTTATAGTA 1140
              ||| ||||| |||||||
Db          1 TATGTAGATGATATAGTA 18


RESULT 308
AAV14083
ID   AAV14083 standard; DNA; 18 BP.
XX
```

AC AAV14083;
XX
DT 19-MAY-1998 (first entry)
XX
DE Probe HBPr249 for RT pol region of HBV.
XX
KW Probe; hepatitis b virus; HBV detection; RT pol region; genetic analysis;
KW preCore region; HBsAg region; genotype specific target;
KW mutation detection; ss.
XX
OS Synthetic.
OS Hepatitis b virus.
XX
PN WO9740193-A2.
XX
PD 30-OCT-1997.
XX
PF 21-APR-1997; 97WO-EP02002.
XX
PR 19-APR-1996; 96EP-0870053.
XX
PA (INNO-) INNOGENETICS NV.
XX
PI Maertens G, Rossau R, Stuyver L;
XX
DR WPI; 1997-535867/49.
XX
PT Detection and/or genetic analysis of hepatitis B virus -
PT specifically genotype, preCore mutations, vaccine escape mutations
PT and RT gene mutations selected by treatment with drugs
XX
PS Claim 5; Page 32; 80pp; English.
XX
CC This sequence represents a probe for the RT pol region of hepatitis
CC b virus (HBV). This sequence can be used in the method of the invention
CC for detection and/or genetic analysis of hepatitis B virus (HBV) in a
CC sample. The method comprises: (a) optionally releasing, isolating or
CC concentrating polynucleic acids (I) in the sample, and amplifying the
CC relevant part of a suitable HBV gene in the sample with at least 1
CC suitable primer pair; (b) hybridising (I) with a combination of at least
CC 2 nucleotide probes, which are applied to known locations on a solid
CC support and hybridise specifically to mutant target sequences chosen from
CC the HBV RT pol gene region, HBV preCore region, HBsAg region and/or HBV
CC genotype specific target sequences, or their complements or U for T
CC homologues; (c) detecting the hybrids formed in step (b), and inferring
CC the HBV genotype and/or mutants present in the sample from the
CC differential hybridisation signal(s). The composition can be used to
CC diagnose and/or monitor HBV mutants and/or genotypes in a sample,
CC specifically genotype, preCore mutations, vaccine escape mutations and
CC RT gene mutations selected by treatment with drugs, e.g. lamivudune and
CC penciclovir.
XX
SQ Sequence 18 BP; 7 A; 0 C; 4 G; 7 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1123 TATAAAGATGTTATAGTA 1140
|||| |||| |||||||
Db 1 TATATGGATGATATAGTA 18

RESULT 309
AAV14088
ID AAV14088 standard; DNA; 18 BP.
XX
AC AAV14088;
XX
DT 19-MAY-1998 (first entry)
XX
DE Probe HBPr254 for RT pol region of HBV.
XX
KW Probe; hepatitis b virus; HBV detection; RT pol region; genetic analysis;
KW preCore region; HBsAg region; genotype specific target;
KW mutation detection; ss.
XX
OS Synthetic.
OS Hepatitis b virus.
XX
PN WO9740193-A2.
XX
PD 30-OCT-1997.
XX
PF 21-APR-1997; 97WO-EP02002.
XX
PR 19-APR-1996; 96EP-0870053.
XX
PA (INNO-) INNOGENETICS NV.
XX
PI Maertens G, Rossau R, Stuyver L;
XX
DR WPI; 1997-535867/49.
XX
PT Detection and/or genetic analysis of hepatitis B virus -
PT specifically genotype, preCore mutations, vaccine escape mutations
PT and RT gene mutations selected by treatment with drugs
XX
PS Claim 5; Page 32; 80pp; English.
XX
CC This sequence represents a probe for the RT pol region of hepatitis
CC b virus (HBV). This sequence can be used in the method of the invention
CC for detection and/or genetic analysis of hepatitis B virus (HBV) in a
CC sample. The method comprises: (a) optionally releasing, isolating or
CC concentrating polynucleic acids (I) in the sample, and amplifying the
CC relevant part of a suitable HBV gene in the sample with at least 1
CC suitable primer pair; (b) hybridising (I) with a combination of at least
CC 2 nucleotide probes, which are applied to known locations on a solid
CC support and hybridise specifically to mutant target sequences chosen from
CC the HBV RT pol gene region, HBV preCore region, HBsAg region and/or HBV
CC genotype specific target sequences, or their complements or U for T
CC homologues; (c) detecting the hybrids formed in step (b), and inferring
CC the HBV genotype and/or mutants present in the sample from the
CC differential hybridisation signal(s). The composition can be used to
CC diagnose and/or monitor HBV mutants and/or genotypes in a sample,
CC specifically genotype, preCore mutations, vaccine escape mutations and
CC RT gene mutations selected by treatment with drugs, e.g. lamivudune and
CC penciclovir.
XX
SQ Sequence 18 BP; 7 A; 1 C; 3 G; 7 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1123 TATAAAGATGTTATAGTA 1140
|||| ||||| ||| |||
Db 1 TATATAGATGATATCGTA 18

RESULT 310
AAV14089
ID AAV14089 standard; DNA; 18 BP.
XX
AC AAV14089;
XX
DT 19-MAY-1998 (first entry)
XX
DE Probe HBPr255 for RT pol region of HBV.
XX
KW Probe; hepatitis b virus; HBV detection; RT pol region; genetic analysis;
KW preCore region; HBsAg region; genotype specific target;
KW mutation detection; ss.
XX
OS Synthetic.
OS Hepatitis b virus.

```
XX
PN   WO9740193-A2.
XX
PD   30-OCT-1997.
XX
PF   21-APR-1997;   97WO-EP02002.
XX
PR   19-APR-1996;   96EP-0870053.
XX
PA   (INNO-) INNOGENETICS NV.
XX
PI   Maertens G,  Rossau R,  Stuyver L;
XX
DR   WPI; 1997-535867/49.
XX
PT   Detection and/or genetic analysis of hepatitis B virus -
PT   specifically genotype, preCore mutations, vaccine escape mutations
PT   and RT gene mutations selected by treatment with drugs
XX
PS   Claim 5; Page 32; 80pp; English.
XX
CC   This sequence represents a probe for the RT pol region of hepatitis
CC   b virus (HBV). This sequence can be used in the method of the invention
CC   for detection and/or genetic analysis of hepatitis B virus (HBV) in a
CC   sample. The method comprises: (a) optionally releasing, isolating or
CC   concentrating polynucleic acids (I) in the sample, and amplifying the
CC   relevant part of a suitable HBV gene in the sample with at least 1
CC   suitable primer pair; (b) hybridising (I) with a combination of at least
CC   2 nucleotide probes, which are applied to known locations on a solid
CC   support and hybridise specifically to mutant target sequences chosen from
CC   the HBV RT pol gene region, HBV preCore region, HBsAg region and/or HBV
CC   genotype specific target sequences, or their complements or U for T
CC   homologues; (c) detecting the hybrids formed in step (b), and inferring
CC   the HBV genotype and/or mutants present in the sample from the
CC   differential hybridisation signal(s). The composition can be used to
CC   diagnose and/or monitor HBV mutants and/or genotypes in a sample,
CC   specifically genotype, preCore mutations, vaccine escape mutations and
CC   RT gene mutations selected by treatment with drugs, e.g. lamivudune and
CC   penciclovir.
XX
SQ   Sequence 18 BP; 7 A; 0 C; 3 G; 8 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1123 TATAAAGATGTTATAGTA 1140
              ||||  |||| |||||||
Db          1 TATATTGATGATATAGTA 18


RESULT 311
AAT68917
ID   AAT68917 standard; DNA; 18 BP.
XX
AC   AAT68917;
XX
DT   04-FEB-1998  (first entry)
XX
DE   Sense primer 1 for eNOS gene 5'-flanking region (-786).
XX
KW   5'-flanking region; PCR primer; analysis;
KW   endothelial nitrogen monoxide synthase; eNOS; genetic screening;
KW   coronary arterial spasm; angina pectoris; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9718327-A1.
XX
PD   22-MAY-1997.
XX
PF   13-NOV-1996;   96WO-JP03324.
XX
PR   28-JUN-1996;   96JP-0168761.
PR   13-NOV-1995;   95JP-0319504.
XX
PA   (SHIO ) SHIONOGI & CO LTD.
XX
PI   Yasue H,  Yoshimura M;
XX
DR   WPI; 1997-289303/26.
XX
PT   Genetic screening for diseases associated with coronary arterial
PT   spasm - by assessment of the occurrence of specific mutation(s) of
PT   the endothelial nitrogen monoxide synthase gene
XX
PS   Example 7; Page 26; 47pp; Japanese.
XX
CC   The present sequence is a primer for the PCR amplification of the
CC   endothelial nitrogen monoxide synthase (eNOS) gene 5'-flanking
CC   region (-1468). The amplification product was used in an example of
CC   genetic screening method for diseases associated with coronary
CC   arterial spasm, which comprises determining if 1 or more specific
CC   nucleotides in the eNOS gene have been substituted, specifically
CC   G894T, C774T, T(-786)C, A(-922)G and T(-1468)A. Screening for
CC   diseases associated with coronary spasm, e.g angina pectoris,
CC   cannot be easily carried out by existing methods, this method
CC   allows rapid and easy detection.
XX
SQ   Sequence 18 BP; 1 A; 1 C; 7 G; 9 T; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1355 GTGTTGGTAGTGCTGTGT 1372
              | ||| ||||| ||||||
Db          1 GGGTTTGTAGTTCTGTGT 18


RESULT 312
AAV36356/c
ID   AAV36356 standard; DNA; 18 BP.
XX
AC   AAV36356;
XX
DT   10-NOV-1998  (first entry)
XX
DE   Antisense oligonucleotide HAdA3MM1, targeting adenosine A3 receptor.
XX
KW   Secondary structure; mRNA; phosphorothioate backbone; G-protein;
KW   bronchoconstriction; lung inflammation; asthma; pulmonary disease;
KW   allergy; emphysema; cystic fibrosis; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1..18
FT                   /*tag=  a
FT                   /note= "contains phosphorothioate internucleotide
FT                         linkages"
XX
PN   WO9823294-A1.
XX
PD   04-JUN-1998.
XX
PF   26-NOV-1997;   97WO-US22017.
XX
PR   26-NOV-1996;   96US-0757024.
XX
PA   (UYEC-) UNIV EAST CAROLINA.
XX
PI   Nyce JW;
XX
```

DR WPI; 1998-322464/28.
XX
PT Treating respiratory disease with antisense sequences directed
PT against adenosine or bradykinin receptors - with localised delivery
PT to the respiratory system, suitable for long term treatment of
PT asthma, adult respiratory distress syndrome etc.
XX
PS Example 1; Page 30; 47pp; English.
XX
CC Sequences AAV36356 and AAV36358 are anti-sense oligonucleotides used as
CC mismatched controls to target the human adenosine A3 receptor and thus
CC test the other oligonucleotides, AAV36355 and AAV36357 respectively, the
CC design of which required the secondary structure of the targeted mRNA.
CC The adenosine receptor mRNA secondary structure was both analysed and
CC used to construct antisense oligonucleotides containing a
CC phosphorothioate backbone. Once the antisense molecules are created
CC they can be used to target their predetermined sequence, thus causing the
CC gene product to decrease. The antisense oligonucleotides were targeted
CC to specific mRNA regions containing either a junction between the intron
CC and exon, or where they may overlap the initiation codon. The receptor
CC is a member of the G-protein coupled family of cell surface receptors
CC that have 7-transmembrane segments. These oligonucleotides can be used
CC to treat or prevent conditions associated with bronchoconstriction
CC and/or lung inflammation in humans or other animals e.g. asthma,
CC pulmonary disease, allergy, emphysema and cystic fibrosis.
XX
SQ Sequence 18 BP; 3 A; 4 C; 6 G; 5 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 869 GCCAGGATCCACAAGTCC 886
||||.|||||.|||||.|
Db 18 GCCATGATCCGCAAGTAC 1

RESULT 313
AAX90242
ID AAX90242 standard; DNA; 18 BP.
XX
AC AAX90242;
XX
DT 23-SEP-1999 (first entry)
XX
DE GRK4 allele specific probe #9.
XX
KW Human; antibody; G-protein-related kinase; GRK4; mutant; hypertension;
KW probe; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9935279-A1.
XX
PD 15-JUL-1999.
XX
PF 12-JAN-1999; 99WO-US00663.
XX
PR 28-AUG-1998; 98US-0098279.
PR 12-JAN-1998; 98US-0071199.
XX
PA (GEOU) UNIV GEORGETOWN MEDICAL CENT.
PA (UYVI-) UNIV VIRGINIA PATENT FOUND.
XX
PI Felder R, Jose P;
XX
DR WPI; 1999-444199/37.
XX
PT G protein-coupled receptor kinase 4 mutants associated with
PT essential hypertension, useful for identifying anti-hypertensive
PT drugs
XX
PS Disclosure; Page 20; 54pp; English.
XX
CC The present invention describes an isolated nucleic acid molecule
CC encoding a G protein-coupled receptor kinase (GRK) 4 protein having an
CC R65L, A142V or R65L, A486 double mutation or an R65L, A142V, A486V
CC triple mutation. A transgenic animal, comprising a diploid genome
CC comprising a transgene encoding a GRK4 protein which is expressed in
CC renal cells to produce the GRK4 protein, and where expression of the
CC transgene causes the transgenic animal to exhibit a state of essential
CC hypertension compared to a normotensive animal whose renal cells do not
CC express the GRK4 protein. The transgenic animal, especially a mouse, is
CC useful as a model for essential hypertension. The transgenic animal's
CC renal cells have a decreased ability to reject sodium compared to a
CC normotensive animal whose renal cells do not express GRK4. The animal
CC model, and reconstituted whole cell system, can be used to identify
CC putative anti-hypertensive agents. The GRK4 protein complex and
CC immortalized kidney cell cultures can also be used to identify putative
CC anti-hypertensive agents. Drugs, e.g. antisense GRK4 RNA, a GRK4
CC ribozyme or a GRK4 dominant negative mutant DNA molecule, that interact
CC with GRK4 can be used to increase natriuresis (decrease sodium
CC transport) in essential hypertensive individuals. The present sequence
CC represents a GRK4 allele specific probe from the present invention.
XX
SQ Sequence 18 BP; 3 A; 3 C; 6 G; 6 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 484 TGTTGTAGGGTTGCCAGA 501
|||||||||.||||.||
Db 1 TGTTGTAGGACTGCCTGA 18

RESULT 314
AAX57900
ID AAX57900 standard; DNA; 18 BP.
XX
AC AAX57900;
XX
DT 15-JUL-1999 (first entry)
XX
DE PCR primer for construction of AcmA derivatives.
XX
KW AcmA repeat; consensus sequence; major peptidoglycan hydrolase; vaccine;
KW cell wall attachment; substance delivery; diagnosis; bioadsorption;
KW PCR primer; ss.
XX
OS Synthetic.
XX
PN EP916726-A1.
XX
PD 19-MAY-1999.
XX
PF 13-NOV-1997; 97EP-0203539.
XX
PR 13-NOV-1997; 97EP-0203539.
XX
PA (UYGR-) RIJKSUNIV GRONINGEN.
XX
DR WPI; 1999-290024/25.
XX
PT New proteinaceous substance comprising a sequence consensus to a
PT major peptidoglycan (AcmA), useful for attaching a substance to a
PT cell wall
XX
PS Example; Page 18; 98pp; English.
XX
CC This sequence represents a PCR primer used in the construction of
CC acmA derivatives. The invention relates to
CC a proteinaceous substance that comprises at least one stretch
CC of amino acids derived from a first organism, capable of attaching
CC to a cell wall of a second microorganism. The proteinaceous

CC substance is useful in a method for attaching a substance to the cell
CC wall of a microorganism, and the substance and either microorganism are
CC useful in pharmaceutical compositions and vaccines, for delivery of a
CC substance to a cell. They are also useful in diagnostic tests,
CC bioadsorption processes and in foodstuffs. The new method targets
CC substances to cells of a wide range of microorganisms, unlike prior art
CC anchoring and targeting proteins which are specific and selective for a
CC limited set of microorganisms, which are usually recombinant or
CC pathogenic. The second microorganism in the new method is
CC non-recombinant, preventing restrictions on applications, and preventing
CC potential problems of colonisation of the mucosal surfaces which
CC generates long term exposure to the target antigens expressed, which can
CC cause immune tolerance. Public consensus is against use of recombinant or
CC attenuated strains, so the new technique is more likely to be accepted
CC than prior art methods.
XX
SQ Sequence 18 BP; 7 A; 2 C; 2 G; 7 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1313 AACAATCCTAGTTTGATA 1330
|| |||| ||||||| |||
Db 1 AGCAATACTAGTTTTATA 18

RESULT 315
AAX28308
ID AAX28308 standard; DNA; 18 BP.
XX
AC AAX28308;
XX
DT 17-JUN-1999 (first entry)
XX
DE PCR primer for Human CYP3A4 gene promoter.
XX
KW CYP3A4 gene polymorphism; polymorphic locus; human; altered metabolism;
KW CYP3A4 substrate; drug-drug interaction identification; toxin exposure;
KW genetic linkage detection; phenotypic variation; promoter; PCR primer;
KW ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9913106-A1.
XX
PD 18-MAR-1999.
XX
PF 02-SEP-1998; 98WO-US18158.
XX
PR 10-SEP-1997; 97US-0058612.
XX
PA (AXYS-) AXYS PHARM INC.
XX
PI Guida M, Lichter JB;
XX
DR WPI; 1999-215070/18.
XX
PT New isolated CYP3A4 polymorphic sequences
XX
PS Example; Page 18; 40pp; English.
XX
CC This sequence represents a PCR primer for the human CYP3A4 gene promoter.
CC The invention relates to a CYP3A4 sequence polymorphism,
CC which is part of a non-naturally occurring chromosome. Nucleic acids
CC comprising the CYP3A4 polymorphic sequences can be used to screen
CC patients for altered metabolism for CYP3A4 substrates, potential
CC drug-drug interactions, and adverse/side effects as well as diseases that
CC result from environmental or occupational exposure to toxins. They can
CC also be used to establish animal, cell culture and in vitro cell-free
CC models for drug metabolism. Polymorphic CYP3A4 gene sequences can be used
CC for expression studies to determine the effect of promoter and/or intron
CC sequence variations on mRNA expression and stability. The polymorphisms
CC are also used as single nucleotide polymorphisms to detect genetic
CC linkage to phenotypic variation in activity and expression of CYP3A4. The
CC nucleic acids can also be used to generate genetically modified non-human
CC animals or site specific gene modifications in cell lines.
XX
SQ Sequence 18 BP; 10 A; 2 C; 6 G; 0 U; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 414 CAAGAATCAGTGAAGATG 431
|||||| ||| ||||| |
Db 1 CAAGAAACAGAGAAGAGG 18

RESULT 316
AAZ71080/c
ID AAZ71080 standard; DNA; 18 BP.
XX
AC AAZ71080;
XX
DT 10-SEP-2001 (first entry)
XX
DE Human biallelic marker upstream amplification primer SEQ ID NO:5436.
XX
KW Human genome; biallelic marker; high density disequilibrium map;
KW genomic map; haplotype; phenotype; polymorphic base; genotyping;
KW haplotyping; hybridisation; identification; characterisation;
KW amplification; single nucleotide polymorphism; SNP; PCR primer;
KW diagnosis; ss.
XX
OS Homo sapiens.
XX
PN WO9954500-A2.
XX
PD 28-OCT-1999.
XX
PF 21-APR-1999; 99WO-IB00822.
XX
PR 21-APR-1998; 98US-0082614.
PR 23-NOV-1998; 98US-0109732.
XX
PA (GEST) GENSET.
XX
PI Cohen D, Blumenfeld M, Chumakov I;
XX
DR WPI; 2000-013267/01.
XX
PT Novel biallelic markers used to construct a high density disequilibrium
PT map of the human genome -
XX
PS Claim 8; Page 1390; 2745pp; English.
XX
CC AAZ65654 to AAZ69578 represent human biallelic markers from the present
CC invention, which contain a polymorphic base at position 24 of their
CC nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
CC primers for the biallelic markers. The biallelic markers of the
CC invention have a variety of uses: they can be used for high density
CC mapping of the human genome, and in complex association studies and
CC haplotyping studies which are useful in determining the genetic basis
CC for disease states. Compositions and methods of the invention can also
CC be useful for the identification of the targets for the development of
CC pharmaceutical agents and diagnostic methods, as well as the
CC characterisation of the differential efficacious responses to and side
CC effects from pharmaceutical agents acting on a disease as well as other
CC treatment.
CC N.B. The SEQ ID NOs 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297
CC and 3367, are not actually given a sequence in the Sequence Listing
CC from the present invention.
XX
SQ Sequence 18 BP; 5 A; 6 C; 2 G; 5 T; 0 other;

```
  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        421 CAGTGAAGATGCCAGTGA 438
              ||||||| || |||| |
Db         18 CAGTGAAGGTGTCAGTTA 1


RESULT 317
AAZ40682/c
ID   AAZ40682 standard; RNA; 18 BP.
XX
AC   AAZ40682;
XX
DT   17-MAR-2000  (first entry)
XX
DE   Yersinia YopE mRNA fragment.
XX
KW   Type III secretion; Yersinia; YopE; YopN; Yop protein; phagocytic;
KW   macrophage; antisense; ss.
XX
OS   Yersinia enterocolitica.
XX
PN   WO9960011-A1.
XX
PD   25-NOV-1999.
XX
PF   21-MAY-1999;   99WO-US11361.
XX
PR   21-MAY-1998;   98US-0086302.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Schneewind O,  Anderson DM;
XX
DR   WPI; 2000-072427/06.
XX
PT   Antisense oligonucleotide inhibition useful for suppression of
PT   virulence and improvement of host defense mechanisms such as
PT   phagocytosis -
XX
PS   Disclosure; Page 28; 50pp; English.
XX
CC   The invention relates to a method of inhibiting Type III secretion of
CC   proteins by Yersinia by contacting the cell with an antisense oligo that
CC   binds at least a portion of mRNA encoding the first 15 amino acids of
CC   either the wild-type YopE or YopN protein. The methods are useful for
CC   inhibiting Type III secretion of proteins by Yersinia (especially Yop
CC   proteins which allow Yersinia to evade phagocytic killing by macrophages)
CC   and other Gram-negative bacteria, where the antisense oligonucleotide
CC   binds a portion of mRNA encoding a secretion signal of a secreted protein
CC   of a Gram-negative bacterium. The Gram-negative bacterium that can be
CC   targeted include Yersinia spp., Escherichia coli, Salmonella spp.,
CC   Shigella spp., Pseudomonas spp. and Xanthomonas spp. Inhibiting Type III
CC   secretion of proteins is useful for enhancing a hosts defenses against
CC   such bacteria. The methods also provide a means for screening for
CC   compounds, which block or inhibit the type III secretion.
XX
SQ   Sequence 18 BP; 9 A; 2 C; 0 G; 7 U; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1160 ATTAAATGATGTTTTATT 1177
              ||||||||||| | | ||
Db         18 ATTAAATGATGATATTTT 1


RESULT 318
AAZ40683/c
ID   AAZ40683 standard; RNA; 18 BP.
XX
AC   AAZ40683;
XX
DT   17-MAR-2000  (first entry)
XX
DE   Yersinia YopE spontaneous suppressor mutant fragment.
XX
KW   Type III secretion; Yersinia; YopE; YopN; Yop protein; phagocytic;
KW   macrophage; antisense; ss.
XX
OS   Yersinia enterocolitica.
OS   Synthetic.
XX
PN   WO9960011-A1.
XX
PD   25-NOV-1999.
XX
PF   21-MAY-1999;   99WO-US11361.
XX
PR   21-MAY-1998;   98US-0086302.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Schneewind O,  Anderson DM;
XX
DR   WPI; 2000-072427/06.
XX
PT   Antisense oligonucleotide inhibition useful for suppression of
PT   virulence and improvement of host defense mechanisms such as
PT   phagocytosis -
XX
PS   Disclosure; Page 28; 50pp; English.
XX
CC   The invention relates to a method of inhibiting Type III secretion of
CC   proteins by Yersinia by contacting the cell with an antisense oligo that
CC   binds at least a portion of mRNA encoding the first 15 amino acids of
CC   either the wild-type YopE or YopN protein. The methods are useful for
CC   inhibiting Type III secretion of proteins by Yersinia (especially Yop
CC   proteins which allow Yersinia to evade phagocytic killing by macrophages)
CC   and other Gram-negative bacteria, where the antisense oligonucleotide
CC   binds a portion of mRNA encoding a secretion signal of a secreted protein
CC   of a Gram-negative bacterium. The Gram-negative bacterium that can be
CC   targeted include Yersinia spp., Escherichia coli, Salmonella spp.,
CC   Shigella spp., Pseudomonas spp. and Xanthomonas spp. Inhibiting Type III
CC   secretion of proteins is useful for enhancing a hosts defenses against
CC   such bacteria. The methods also provide a means for screening for
CC   compounds, which block or inhibit the type III secretion.
XX
SQ   Sequence 18 BP; 9 A; 2 C; 1 G; 6 U; 0 other;

  Query Match             1.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 3.8e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1160 ATTAAATGATGTTTTATT 1177
              ||||||||||| | | ||
Db         18 ATTAAATGATGCTATTTT 1


RESULT 319
AAZ40684/c
ID   AAZ40684 standard; RNA; 18 BP.
XX
AC   AAZ40684;
XX
DT   17-MAR-2000  (first entry)
XX
DE   Yersinia YopE spontaneous suppressor mutant fragment.
XX
KW   Type III secretion; Yersinia; YopE; YopN; Yop protein; phagocytic;
KW   macrophage; antisense; ss.
XX
```

OS Yersinia enterocolitica.
OS Synthetic.
XX
PN WO9960011-A1.
XX
PD 25-NOV-1999.
XX
PF 21-MAY-1999; 99WO-US11361.
XX
PR 21-MAY-1998; 98US-0086302.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Schneewind O, Anderson DM;
XX
DR WPI; 2000-072427/06.
XX
PT Antisense oligonucleotide inhibition useful for suppression of
PT virulence and improvement of host defense mechanisms such as
PT phagocytosis -
XX
PS Disclosure; Page 28; 50pp; English.
XX
CC The invention relates to a method of inhibiting Type III secretion of
CC proteins by Yersinia by contacting the cell with an antisense oligo that
CC binds at least a portion of mRNA encoding the first 15 amino acids of
CC either the wild-type YopE or YopN protein. The methods are useful for
CC inhibiting Type III secretion of proteins by Yersinia (especially Yop
CC proteins which allow Yersinia to evade phagocytic killing by macrophages)
CC and other Gram-negative bacteria, where the antisense oligonucleotide
CC binds a portion of mRNA encoding a secretion signal of a secreted protein
CC of a Gram-negative bacterium. The Gram-negative bacterium that can be
CC targeted include Yersinia spp., Escherichia coli, Salmonella spp.,
CC Shigella spp., Pseudomonas spp. and Xanthomonas spp. Inhibiting Type III
CC secretion of proteins is useful for enhancing a hosts defenses against
CC such bacteria. The methods also provide a means for screening for
CC compounds, which block or inhibit the type III secretion.
XX
SQ Sequence 18 BP; 9 A; 2 C; 1 G; 6 U; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy       1160 ATTAAATGATGTTTTATT 1177
              ||||||||||| | | ||
Db         18 ATTAAATGATGCTATTTT 1
```

RESULT 320
AAZ40685/c
ID AAZ40685 standard; RNA; 18 BP.
XX
AC AAZ40685;
XX
DT 17-MAR-2000 (first entry)
XX
DE Yersinia YopE spontaneous suppressor mutant fragment.
XX
KW Type III secretion; Yersinia; YopE; YopN; Yop protein; phagocytic;
KW macrophage; antisense; ss.
XX
OS Yersinia enterocolitica.
OS Synthetic.
XX
PN WO9960011-A1.
XX
PD 25-NOV-1999.
XX
PF 21-MAY-1999; 99WO-US11361.
XX
PR 21-MAY-1998; 98US-0086302.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Schneewind O, Anderson DM;
XX
DR WPI; 2000-072427/06.
XX
PT Antisense oligonucleotide inhibition useful for suppression of
PT virulence and improvement of host defense mechanisms such as
PT phagocytosis -
XX
PS Disclosure; Page 28; 50pp; English.
XX
CC The invention relates to a method of inhibiting Type III secretion of
CC proteins by Yersinia by contacting the cell with an antisense oligo that
CC binds at least a portion of mRNA encoding the first 15 amino acids of
CC either the wild-type YopE or YopN protein. The methods are useful for
CC inhibiting Type III secretion of proteins by Yersinia (especially Yop
CC proteins which allow Yersinia to evade phagocytic killing by macrophages)
CC and other Gram-negative bacteria, where the antisense oligonucleotide
CC binds a portion of mRNA encoding a secretion signal of a secreted protein
CC of a Gram-negative bacterium. The Gram-negative bacterium that can be
CC targeted include Yersinia spp., Escherichia coli, Salmonella spp.,
CC Shigella spp., Pseudomonas spp. and Xanthomonas spp. Inhibiting Type III
CC secretion of proteins is useful for enhancing a hosts defenses against
CC such bacteria. The methods also provide a means for screening for
CC compounds, which block or inhibit the type III secretion.
XX
SQ Sequence 18 BP; 9 A; 2 C; 0 G; 7 U; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy       1160 ATTAAATGATGTTTTATT 1177
              ||||||||||| | | ||
Db         18 ATTAAATGATGATATTTT 1
```

RESULT 321
AAD17638/c
ID AAD17638 standard; DNA; 18 BP.
XX
AC AAD17638;
XX
DT 10-DEC-2001 (first entry)
XX
DE Human GCPII gene exon-4 amplifying PCR primer #1.
XX
KW Human; glutamate carboxypeptidase II; GCPII gene; dietary folate; FGCP;
KW folypoly-gamma-glutamate carboxypeptidase; hyperhomocyteinaemia;
KW cardiovascular disease; Alzheimer's disease; neural tube defect;
KW congenital heart defect; colon cancer; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200168897-A2.
XX
PD 20-SEP-2001.
XX
PF 12-MAR-2001; 2001WO-US07880.
XX
PR 13-MAR-2000; 2000US-0188983.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Halsted CH, Devlin AM;
XX
DR WPI; 2001-582462/65.
XX
PT Screening an individual for increased risk of low folate status,
PT comprises detecting mutation in human glutamate carboxypeptidase II
PT gene which affects ability of hydrolyzing terminal glutamates from
PT dietary folates -

XX
PS Example 5; Page 26; 38pp; English.
XX
CC The patent discloses methods for screening an individual for increased
CC risk of low folate status. The method involves detecting a mutation
CC in the human glutamate carboxypeptidase (GCP) II gene in a biological
CC sample from said individual, wherein detection of the mutation is
CC indicative of decreased ability of an individual to hydrolyse terminal
CC glutamate residues from dietary folates by folypoly-gamma-glutamate
CC carboxypeptidase (FGCP), a product of GCPII gene. The decreased ability
CC is associated with low folate status. The method is useful for screening
CC an individual for increased risk of low folate status and conditions
CC associated with hyperhomocyteinaemia, cardiovascular disease, colon
CC cancer and altered cognition in the elderly including Alzheimer's
CC disease. Pregnant women with low folate status are at increased risk
CC of bearing children with neural tube defects and congenital heart
CC defects. The present DNA sequence is a PCR primer which is used for
CC amplifying exon-4 of GCPII gene. This primer is designed from PSMA
CC genomic sequence and is used for detecting a mutation in GCPII gene.
XX
SQ Sequence 18 BP; 7 A; 3 C; 2 G; 6 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1230 CAGTTAAATTTTCATTTC 1247
||||||||| ||| ||| |
Db 18 CAGTTAAAGTTTGATTAC 1

RESULT 322
AAH26220/c
ID AAH26220 standard; DNA; 18 BP.
XX
AC AAH26220;
XX
DT 17-SEP-2001 (first entry)
XX
DE Parathyroid hormone cDNA 3' PCR primer.
XX
KW Parathyroid hormone; parathormone; PTH; kidney failure; rat;
KW osteoporosis; gene therapy; ss.
XX
OS Rattus sp.
XX
PN WO200149838-A2.
XX
PD 12-JUL-2001.
XX
PF 02-JAN-2001; 2001WO-IL00006.
XX
PR 03-JAN-2000; 2000IL-0133875.
XX
PA (HADA-) HADASIT MEDICAL RES SERVICES & DEV.
XX
PI Silver J, Naveh T;
XX
DR WPI; 2001-432876/46.
XX
PT Novel isolated cis-acting regulatory nucleic acid sequence comprising
PT 3'-untranslated region of parathyroid hormone gene useful in gene
PT therapy for treating pathological condition such as chronic renal
PT failure -
XX
PS Example 1; Page 39; 83pp; English.
XX
CC The present sequence is that of a 3' PCR primer used in the
CC amplification of a 40 nucleotide transcript, which was used in
CC the construction of a plasmid containing rat parathyroid
CC hormone (PTH) cDNA. Cis-acting sequences (see AAH26198-211)
CC comprising fragments of the 3' untranslated region of mammalian PTH
CC genes, or allelic variants, mutants or functionally equivalent
CC fragments, can be linked to a heterologous or homologous coding
CC sequence of interest, and direct specific regulation of stability of
CC the mRNA encoded by the linked coding sequence. The regulation of
CC the stability of the mRNA is responsive to changes in serum levels
CC of any one of calcium and phosphate and is further mediated by the
CC binding of at least one parathyroid protein or its derivatives to
CC the cis-acting sequence. A pharmaceutical composition for
CC prevention or treatment of disorders associated with abnormal
CC function of the parathyroid gland or abnormal metabolism of calcium
CC and/or phosphate comprises parathyroid protein or an agent that
CC binds to the cis-acting element. It is useful for preventing
CC and/or treating over- or underproduction of PTH, bone diseases,
CC particularly osteoporosis, and for treating chronic renal failure.
CC A DNA construct comprising the cis-acting sequence with a coding
CC sequence is useful in gene therapy.
XX
SQ Sequence 18 BP; 10 A; 1 C; 2 G; 5 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 585 CTTATATGTAAAGTATTA 602
||| | | |||||||||
Db 18 CTTCTTTTTAAAGTATTA 1

RESULT 323
AAH63112/c
ID AAH63112 standard; DNA; 18 BP.
XX
AC AAH63112;
XX
DT 11-SEP-2001 (first entry)
XX
DE Shrimp white spot Bacilliform virus (WSBV) oligonucleotide 273.
XX
KW Shrimp white spot Bacilliform virus; WSBV; diagnosis; viral infection;
KW antiviral agent; gene expression; antisense construct; probe; primer;
KW transgenic viral resistant shrimp; ss.
XX
OS White spot syndrome virus.
XX
PN WO200138351-A2.
XX
PD 31-MAY-2001.
XX
PF 08-NOV-2000; 2000WO-US28888.
XX
PR 24-NOV-1999; 99CN-0124717.
XX
PA (PENY-) PE CORP NY.
PA (THIR-) THIRD INST OCEANOGRAPHY STATE OCEANI C A.
PA (SINO-) SINOGENOMAX CO LTD.
XX
PI Xu X, Yang F, He J, Pham L, He M, Ye Y, Shen Y, Kodira C;
XX
DR WPI; 2001-355877/37.
XX
PT Primary nucleotide sequence of the shrimp white spot Bacilliform virus
PT (WSBV), useful for producing viral polypeptides that can be used to
PT screen for agents that are useful for treating WSBV infection -
XX
PS Disclosure; Figure 3; 626pp; English.
XX
CC The invention provides the primary nucleotide sequence of the WSBV genome
CC (AAH62689), predicted transcript sequences (AAH62689-AAH62839) and
CC encoded proteins (AAG84910-AAG85051) and oligonucleotide sequences
CC (AAH62840-63160) suitable for use as primers or probes. The nucleic acid
CC molecules and proteins of the invention are useful for diagnosis and
CC monitoring viral infection, in screens for antiviral agents and for
CC monitoring viral gene expression or activity during a treatment regimen.
CC The nucleic acid molecules are also useful as antisense constructs to

CC control viral gene expression in infected cells and tissues and to create
CC transgenic viral resistant shrimp.
XX
SQ Sequence 18 BP; 6 A; 5 C; 2 G; 5 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1073 ATTTGTGCAAGAATTTGG 1090
|| |||||||||| ||||
Db 18 ATCTGTGCAAGATATTGG 1

RESULT 324
AAF79673/c
ID AAF79673 standard; DNA; 18 BP.
XX
AC AAF79673;
XX
DT 29-MAY-2001 (first entry)
XX
DE Human Akt-3 antisense oligonucleotide, SEQ ID NO: 81.
XX
KW Human; Akt-3; protein kinase; cytostatic; antiinflammatory; infection;
KW antisense therapy; inflammation; tumour; ss.
XX
OS Homo sapiens.
XX
PN US6187586-B1.
XX
PD 13-FEB-2001.
XX
PF 29-DEC-1999; 99US-0474922.
XX
PR 29-DEC-1999; 99US-0474922.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Monia BP, Cowsert LM, Roth RA;
XX
DR WPI; 2001-264979/27.
XX
PT New antisense compounds targeting nucleic acids encoding human Akt-3
PT useful for treating a disease or condition associated with Akt-3
PT expression, or in preventing or delaying inflammation or tumor
PT formation -
XX
PS Claim 1; Column 40; 37pp; English.
XX
CC The present sequence is one of a number of antisense compounds of up to
CC 30 nucleobases in length targeted to a nucleic acid encoding human Akt-3.
CC The antisense compounds are useful for inhibiting the expression of human
CC Akt-3 in human cells or tissues. They are also useful for modulating the
CC expression of Akt-3, and for treating a human or an animal suspected of
CC having, or being prone to, a disease or condition associated with Akt-3
CC expression. The antisense compounds may also be used as research
CC reagents, in kits and in diagnostics, e.g. to elucidate the function of a
CC particular gene or to distinguish between functions of various members of
CC a biological pathway; and as a prophylactic, e.g. to prevent or delay
CC infection, inflammation or tumour formation.
XX
SQ Sequence 18 BP; 3 A; 3 C; 1 G; 11 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1596 AAAAGTAAATATGAAACA 1613
||||| || ||||| |||
Db 18 AAAAGAAATTATGAGACA 1

RESULT 325
AAF75597/c
ID AAF75597 standard; DNA; 18 BP.
XX
AC AAF75597;
XX
DT 10-MAY-2001 (first entry)
XX
DE Binary encoded sequence tag method anchored primer #2.
XX
KW Binary encoded sequence tag; BEST; nucleic acid analysis;
KW gene expression; adaptor; PCR primer; ss.
XX
OS Synthetic.
XX
PN WO200112855-A2.
XX
PD 22-FEB-2001.
XX
PF 11-AUG-2000; 2000WO-US22164.
XX
PR 13-AUG-1999; 99US-0148870.
PR 06-APR-2000; 2000US-0544713.
XX
PA (UYYA) UNIV YALE.
XX
PI Kaufman JC, Roth ME, Lizardi PM, Feng L, Latimer DR;
XX
DR WPI; 2001-202878/20.
XX
PT Producing binary sequence tags, useful for analyzing nucleic acid
PT sequence tags, gene expression or gene-expression patterns, involves
PT generating nucleic acid fragments, which are mixed with offset adaptors
PT and adaptor-indexers -
XX
PS Disclosure; Page 100; 101pp; English.
XX
CC The present invention describes a method of producing binary sequence
CC tags from nucleic acid fragments in a sample, involving incubating the
CC sample with cleaving reagents, mixing offset adaptors with the sample,
CC incubating with more cleaving reagents and mixing the sample with
CC adaptor-indexers where the adaptors are coupled to binary sequence tags.
CC The method is useful in sequence analysis, including analysis and
CC comparison of gene expression, nucleic acid samples and genomes.
XX
SQ Sequence 18 BP; 0 A; 0 C; 1 G; 17 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 616 ACAAAAAACAACAAATAA 633
||||||| || ||| ||
Db 18 ACAAAAAAAAAAAAAAAA 1

RESULT 326
ABZ33767/c
ID ABZ33767 standard; DNA; 18 BP.
XX
AC ABZ33767;
XX
DT 31-JAN-2003 (first entry)
XX
DE HIV-1 reverse transcriptase mutation detection probe SEQ ID NO:9.
XX
KW Human immunodeficiency virus; HIV; reverse transcriptase; RT; enzyme;
KW detection; mutation; anti-HIV drug resistance; polymorphism; resistance;
KW probe; ss.
XX
OS Human immunodeficiency virus type 1.
OS Synthetic.
XX

PN WO200255741-A2.
XX
PD 18-JUL-2002.
XX
PF 09-JAN-2002; 2002WO-EP00153.
XX
PR 11-JAN-2001; 2001EP-0870005.
PR 20-APR-2001; 2001EP-0870085.
PR 24-APR-2001; 2001US-286102P.
XX
PA (INNO-) INNOGENETICS NV.
XX
PI De Smet K, Stuyver L;
XX
DR WPI; 2002-590680/63.
XX
PT Detecting mutations associated with anti-HIV drug resistance comprises
PT detecting at least one of the mutations in the HIV reverse
PT transcriptase gene by using probes optimized to function together in a
PT reverse-hybridization assay -
XX
PS Claim 2; Page 9; 117pp; English.
XX
CC The present invention describes a method for detecting mutations
CC associated with anti-HIV drug resistance in a patient by detecting at
CC least one of the mutations K103N/R, V106A/I/L, Y181C/I, M184V/I, Y188L,
CC G190A/S/R, T215Y/F/D/S/A and/or Q151M/L in the reverse transcriptase (RT)
CC of HIV strains in a biological sample using a specific set of probes
CC optimised to function together in a reverse-hybridisation assay. The
CC method and the nucleic acid sequences used in the method are useful for
CC determining viral mutations and/or polymorphisms in the HIV RT gene
CC associated with resistance. The probes are useful for the genetic
CC detection, preferably in vitro detection of the mutations K103N/R,
CC V106A/I/L, Y181C/I, Q151M/L, M184V/I, Y188L, G190A/S/R and/or
CC T215Y/F/D/S/A in the RT of HIV strains in a biological sample, where
CC the mutation is associated with anti-HIV drug resistance. The method
CC provides a rapid, reliable and precise assay or determination and
CC monitoring of antiviral drug resistance or mutations associated with
CC drug resistance of viruses containing RT genes. ABZ33759 to ABZ34642
CC represent HIV RT sequences and probes which are used in the
CC exemplification of the present invention.
XX
SQ Sequence 18 BP; 11 A; 2 C; 2 G; 3 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy       1570 TACTGTTTCTGATTGTAT 1587
              ||||||| ||||||  | |
Db         18 TACTGTTACTGATTTTTT 1
```

RESULT 327
ABL30677
ID ABL30677 standard; DNA; 18 BP.
XX
AC ABL30677;
XX
DT 21-MAR-2002 (first entry)
XX
DE Human HLA genotyping oligonucleotide SEQ ID NO 166.
XX
KW Human; human leukocyte antigen; HLA; genotype; polymorphism;
KW immunogenetic; transplantation; genetic disease; ss.
XX
OS Homo sapiens.
XX
PN WO200192572-A1.
XX
PD 06-DEC-2001.
XX
PF 01-JUN-2001; 2001WO-JP04662.
XX
PR 01-JUN-2000; 2000JP-0164798.
XX
PA (NISN) NISSHINBO IND INC.
PA (SYST-) SYSTEM RES INC.
XX
PI Inoko H, Kagiya T, Ichihara T, Matsumura Y, Moriya S, Nishida M;
XX
DR WPI; 2002-122074/16.
XX
PT Human leukocyte antigen (HLA) typing, useful for judging HLA genotypes
PT of individuals e.g. by determining immunogenetic differences when
PT transplanting between them -
XX
PS Claim 10; Page 124; 345pp; Japanese.
XX
CC The invention relates to a typing kit for judging human leukocyte antigen
CC (HLA) genotype of a sample by hybridising a substrate on which 10-24 base
CC oligonucleotides (ABL30512-ABL31809) originating in the sequences of
CC genes e.g. belonging to HLA class I antigens on human genome and
CC containing gene polymorphisms as alloantigens have been immobilised as
CC primers for amplification of cleaved nucleic acids relating to gene
CC polymorphisms. The method is useful for judging HLA genotypes of
CC individuals by determining immunogenetic differences before transplanting
CC between them, providing genetic information to decide compatibility of
CC organ and tissue for transplantation e.g. of bone marrow, kidney, liver,
CC pancreas, Langerhans islet in pancreas and cornea, susceptibility
CC diagnosis of genetic diseases and identifying individuals.
XX
SQ Sequence 18 BP; 5 A; 2 C; 4 G; 7 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy        519 GGTTAAATTTGAATTTCA 536
              | |||| ||||||| |||
Db          1 GCTTAAGTTTGAATGTCA 18
```

RESULT 328
ABX79935
ID ABX79935 standard; cDNA; 18 BP.
XX
AC ABX79935;
XX
DT 17-APR-2003 (first entry)
XX
DE EST polymorphic DNA repeat polynucleotide #260.
XX
KW EST; expressed sequence tag; ss; polymorphic repeat; tandem repeat;
KW polymorphic marker prediction of ubiquitous simple sequences; POMPOUS;
KW Rep-X; human; genetic disease; drug-treatment; Machado-Joseph;
KW Haw River syndrome; Huntington's disease; fragile-X syndrome;
KW Fredreich's ataxis; myotonic dystrophy; hyperandrogenaemia;
KW spinal atrophy; bulbar atrophy; spinocerebellar ataxia.
XX
OS Homo sapiens.
XX
PN US6472154-B1.
XX
PD 29-OCT-2002.
XX
PF 31-DEC-1999; 99US-0475947.
XX
PR 31-DEC-1999; 99US-0475947.
XX
PA (TEXA) UNIV TEXAS SYSTEM.
XX
PI Garner HR, Wren JD, Minna JD, Fondon JW;
XX
DR WPI; 2003-208818/20.
XX

PT Identifying a candidate polymorphic repeat within a coding sequence,
PT for understanding or treating genetic disease, comprises detecting
PT tandem repeats in a target coding sequence and scoring the repeats for
PT polymorphic probability -
XX
PS Examples; Column 1093; 588pp; English.
XX
CC The invention discloses a method for identifying a candidate polymorphic
CC repeat within a coding sequence (expressed sequence tag, EST), which
CC comprises detecting tandem repeats in a target coding sequence, scoring
CC the repeats for polymorphic probability and generating a dataset
CC correlating the repeats with polymorphic probability to identify a
CC candidate polymorphic repeat. The computational methods (polymorphic
CC marker prediction of ubiquitous simple sequences, POMPOUS, and Rep-X) are
CC useful for identifying and detecting candidate polymorphic repeats in
CC human genes, which can be used to understand, treat or eliminate genetic
CC diseases, predispositions or adverse drug-treatment reactions. Examples
CC of diseases linked to nucleotide repeats are Machado-Joseph, Haw River
CC syndrome, Huntington's disease, fragile-X syndrome, Fredreich's ataxis,
CC myotonic dystrophy, hyperandrogenaemia, spinal and bulbar atrophy and
CC spinocerebellar ataxia. The sequences presented in ABX79676-ABX80022 are
CC the polymorphic repeats identified for a search of human ESTs.
XX
SQ Sequence 18 BP; 5 A; 2 C; 5 G; 6 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 819 CTGGAAATCCTGGATTTT 836
|||||| | ||||||||
Db 1 CTGGAAGACATGGATTTT 18

RESULT 329
ABZ10470
ID ABZ10470 standard; DNA; 18 BP.
XX
AC ABZ10470;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related oligonucleotide #610.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP03401.
XX
PR 26-MAR-2001; 2001US-278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T;
PI Pelet C, Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent
PT that distinguishes between methylated and non-methylated CpG
PT dinucleotides -
XX
PS Claim 15; Page 45; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related
CC DNA sequences. The nucleotide sequences from the present invention can
CC also be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables
CC a highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients.
XX
SQ Sequence 18 BP; 7 A; 0 C; 4 G; 7 T; 0 other;

Query Match 1.1%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 3.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1457 GTTTATTATGTACAAATA 1474
| |||||||| | |||||
Db 1 GGTTATTATGGATAAATA 18

RESULT 330
ABC00856/c
ID ABC00856 standard; DNA; 13 BP.
XX
AC ABC00856;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 847 for detecting SNP TSC0000279.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 847; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic

CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 2 A; 0 C; 2 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1204 ATTAAACAAACAA 1216
||||||||||||
Db 13 ATTAAACAAACAA 1

RESULT 331
ABC00857
ID ABC00857 standard; DNA; 13 BP.
XX
AC ABC00857;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 848 for detecting SNP TSC0000279.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 848; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 2 C; 0 G; 2 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1204 ATTAAACAAACAA 1216
||||||||||||
Db 1 ATTAAACAAACAA 13

RESULT 332
ABC02380
ID ABC02380 standard; DNA; 13 BP.
XX
AC ABC02380;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 2371 for detecting SNP TSC0000941.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 2371; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1133 TTATAGTAAATTT 1145
||||||||||||
Db 1 TTATAGTAAATTT 13

RESULT 333
ABC02381/c
ID ABC02381 standard; DNA; 13 BP.

XX
AC ABC02381;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 2372 for detecting SNP TSC0000941.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 2372; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1133 TTATAGTAAATTT 1145
||||||||||||
Db 13 TTATAGTAAATTT 1

RESULT 334
ABC08774/c
ID ABC08774 standard; DNA; 13 BP.
XX
AC ABC08774;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 8765 for detecting SNP TSC0002388.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 8765; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 0 A; 0 C; 2 G; 11 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 618 AAAAAACAACAAA 630
||||||||||||
Db 13 AAAAAACAACAAA 1

RESULT 335
ABC08775
ID ABC08775 standard; DNA; 13 BP.
XX
AC ABC08775;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 8766 for detecting SNP TSC0002388.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.

```
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 8766; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 11 A; 2 C; 0 G; 0 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        618 AAAAAACAACAAA 630
              |||||||||||||
Db          1 AAAAAACAACAAA 13


RESULT 336
ABC18132
ID   ABC18132 standard; DNA; 13 BP.
XX
AC   ABC18132;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 18139 for detecting SNP TSC0003861.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 18139; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 2 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1268 TTTAGTATAAGTA 1280
              |||||||||||||
Db          1 TTTAGTATAAGTA 13


RESULT 337
ABC18133/c
ID   ABC18133 standard; DNA; 13 BP.
XX
AC   ABC18133;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 18140 for detecting SNP TSC0003861.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 18140; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 2 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy       1268 TTTAGTATAAGTA 1280
              |||||||||||||
Db         13 TTTAGTATAAGTA 1

RESULT 338
ABC19108/c
ID   ABC19108 standard; DNA; 13 BP.
XX
AC   ABC19108;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 19125 for detecting SNP TSC0004001.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 19125; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 2 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1036 CCTATTTATTATT 1048
              |||||||||||||
Db         13 CCTATTTATTATT 1

RESULT 339
ABC19109
ID   ABC19109 standard; DNA; 13 BP.
XX
AC   ABC19109;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 19126 for detecting SNP TSC0004001.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 19126; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 2 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1036 CCTATTTATTATT 1048
              |||||||||||||
Db         1 CCTATTTATTATT 13

RESULT 340
ABC19440
ID   ABC19440 standard; DNA; 13 BP.
XX
AC   ABC19440;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 19457 for detecting SNP TSC0004047.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
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XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 19457; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 0 C; 1 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1049 TATGTATTTATTT 1061
              |||||||||||||
Db          1 TATGTATTTATTT 13


RESULT 341
ABC19441/c
ID   ABC19441 standard; DNA; 13 BP.
XX
AC   ABC19441;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 19458 for detecting SNP TSC0004047.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 19458; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 9 A; 1 C; 0 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1049 TATGTATTTATTT 1061
              |||||||||||||
Db         13 TATGTATTTATTT 1


RESULT 342
ABC20820
ID   ABC20820 standard; DNA; 13 BP.
XX
AC   ABC20820;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 20837 for detecting SNP TSC0004233.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 20837; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
```

```
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 0 C; 0 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1142 ATTTATTTTATTT 1154
              |||||||||||||
Db          1 ATTTATTTTATTT 13


RESULT 343
ABC20821/c
ID   ABC20821 standard; DNA; 13 BP.
XX
AC   ABC20821;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 20838 for detecting SNP TSC0004233.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 20838; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 10 A; 0 C; 0 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1142 ATTTATTTTATTT 1154
              |||||||||||||
Db         13 ATTTATTTTATTT 1


RESULT 344
ABC27496/c
ID   ABC27496 standard; DNA; 13 BP.
XX
AC   ABC27496;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 27513 for detecting SNP TSC0007650.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 27513; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 0 C; 2 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1396 AACTATTAAAACA 1408
              |||||||||||||
Db         13 AACTATTAAAACA 1


RESULT 345
ABC27497
ID   ABC27497 standard; DNA; 13 BP.
XX
AC   ABC27497;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 27514 for detecting SNP TSC0007650.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
```

XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 27514; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 2 C; 0 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1396 AACTATTAAAACA 1408
||||||||||||||
Db 1 AACTATTAAAACA 13

RESULT 346
ABC27750
ID ABC27750 standard; DNA; 13 BP.
XX
AC ABC27750;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 27767 for detecting SNP TSC0007790.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 27767; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1295 TGAAATTTTAATT 1307
||||||||||||||
Db 1 TGAAATTTTAATT 13

RESULT 347
ABC27751/c
ID ABC27751 standard; DNA; 13 BP.
XX
AC ABC27751;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 27768 for detecting SNP TSC0007790.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 27768; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The

```
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1295 TGAAATTTTAATT 1307
              |||||||||||||
Db         13 TGAAATTTTAATT 1

RESULT 348
ABC28094/c
ID   ABC28094 standard; DNA; 13 BP.
XX
AC   ABC28094;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 28111 for detecting SNP TSC0007954.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 28111; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 1 A; 0 C; 3 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        614 CTACAAAAAACAA 626
              |||||||||||||
Db         13 CTACAAAAAACAA 1

RESULT 349
ABC28095
ID   ABC28095 standard; DNA; 13 BP.
XX
AC   ABC28095;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 28112 for detecting SNP TSC0007954.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 28112; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 9 A; 3 C; 0 G; 1 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        614 CTACAAAAAACAA 626
              |||||||||||||
Db          1 CTACAAAAAACAA 13

RESULT 350
ABC29508
ID   ABC29508 standard; DNA; 13 BP.
XX
AC   ABC29508;
```

```
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 29525 for detecting SNP TSC0008747.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 29525; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 0 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAA 1533
              |||||||||||||
Db          1 TTTATATTTTTAA 13


RESULT 351
ABC29509/c
ID   ABC29509 standard; DNA; 13 BP.
XX
AC   ABC29509;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 29526 for detecting SNP TSC0008747.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 29526; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 9 A; 0 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1521 TTTATATTTTTAA 1533
              |||||||||||||
Db          13 TTTATATTTTTAA 1


RESULT 352
ABC30110
ID   ABC30110 standard; DNA; 13 BP.
XX
AC   ABC30110;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 30127 for detecting SNP TSC0009112.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
```

PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 30127; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 0 C; 1 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1594 ATAAAAGTAAATA 1606
||||||||||||
Db 1 ATAAAAGTAAATA 13

RESULT 353
ABC30111/c
ID ABC30111 standard; DNA; 13 BP.
XX
AC ABC30111;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 30128 for detecting SNP TSC0009112.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 30128; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 1 C; 0 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1594 ATAAAAGTAAATA 1606
||||||||||||
Db 13 ATAAAAGTAAATA 1

RESULT 354
ABC37546
ID ABC37546 standard; DNA; 13 BP.
XX
AC ABC37546;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 37563 for detecting SNP TSC0011693.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 37563; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 6 A; 0 C; 2 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1123 TATAAAGATGTTA 1135
||||||||||||

```
Db          1 TATAAAGATGTTA 13


RESULT 355
ABC37547/c
ID   ABC37547 standard; DNA; 13 BP.
XX
AC   ABC37547;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37564 for detecting SNP TSC0011693.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 37564; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 2 C; 0 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1123 TATAAAGATGTTA 1135
              |||||||||||||
Db         13 TATAAAGATGTTA 1


RESULT 356
ABC37938
ID   ABC37938 standard; DNA; 13 BP.
XX
AC   ABC37938;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37955 for detecting SNP TSC0011786.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 37955; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        752 AATGTGATATTTG 764
              |||||||||||||
Db          1 AATGTGATATTTG 13


RESULT 357
ABC37939/c
ID   ABC37939 standard; DNA; 13 BP.
XX
AC   ABC37939;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37956 for detecting SNP TSC0011786.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
```

```
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 37956; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 3 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        752 AATGTGATATTTG 764
              |||||||||||||
Db         13 AATGTGATATTTG 1


RESULT 358
ABC40556
ID   ABC40556 standard; DNA; 13 BP.
XX
AC   ABC40556;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 40573 for detecting SNP TSC0012288.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 40573; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1481 TATAATATTATTT 1493
              |||||||||||||
Db          1 TATAATATTATTT 13


RESULT 359
ABC40557/c
ID   ABC40557 standard; DNA; 13 BP.
XX
AC   ABC40557;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 40574 for detecting SNP TSC0012288.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 40574; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
```

```
SQ   Sequence 13 BP; 8 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1481 TATAATATTATTT 1493
              |||||||||||||
Db         13 TATAATATTATTT 1


RESULT 360
ABC55322
ID   ABC55322 standard; DNA; 13 BP.
XX
AC   ABC55322;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 55339 for detecting SNP TSC0015119.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 55339; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 1 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        600 TTATTTATTTGAA 612
              |||||||||||||
Db          1 TTATTTATTTGAA 13


RESULT 361
ABC55323/c
ID   ABC55323 standard; DNA; 13 BP.
XX
AC   ABC55323;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 55340 for detecting SNP TSC0015119.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 55340; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 1 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        600 TTATTTATTTGAA 612
              |||||||||||||
Db          1 TTATTTATTTGAA 13


RESULT 362
ABC61518
ID   ABC61518 standard; DNA; 13 BP.
XX
AC   ABC61518;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 61535 for detecting SNP TSC0016371.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
```

XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 61535; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 0 C; 0 G; 10 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1144 TTATTTTATTTTA 1156
||||||||||||||
Db 1 TTATTTTATTTTA 13

RESULT 363
ABC61519/c
ID ABC61519 standard; DNA; 13 BP.
XX
AC ABC61519;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 61536 for detecting SNP TSC0016371.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 61536; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 10 A; 0 C; 0 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1144 TTATTTTATTTTA 1156
||||||||||||||
Db 13 TTATTTTATTTTA 1

RESULT 364
ABC61822/c
ID ABC61822 standard; DNA; 13 BP.
XX
AC ABC61822;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 61839 for detecting SNP TSC0016434.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 61839; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,

```
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 0 A; 0 C; 3 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        617 CAAAAAACAACAA 629
              |||||||||||||
Db         13 CAAAAAACAACAA 1


RESULT 365
ABC61823
ID   ABC61823 standard; DNA; 13 BP.
XX
AC   ABC61823;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 61840 for detecting SNP TSC0016434.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 61840; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 10 A; 3 C; 0 G; 0 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        617 CAAAAAACAACAA 629
              |||||||||||||
Db          1 CAAAAAACAACAA 13


RESULT 366
ABC67270
ID   ABC67270 standard; DNA; 13 BP.
XX
AC   ABC67270;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 67287 for detecting SNP TSC0017611.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 67287; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1613 ATTTAAAATATAA 1625
              |||||||||||||
Db          1 ATTTAAAATATAA 13


RESULT 367
ABC67271/c
ID   ABC67271 standard; DNA; 13 BP.
XX
AC   ABC67271;
XX
DT   21-FEB-2002  (first entry)
```

```
XX
DE   Oligonucleotide SEQ ID NO 67288 for detecting SNP TSC0017611.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 67288; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1613 ATTTAAAATATAA 1625
              |||||||||||||
Db         13 ATTTAAAATATAA 1


RESULT 368
ABC72812/c
ID   ABC72812 standard; DNA; 13 BP.
XX
AC   ABC72812;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 72829 for detecting SNP TSC0018809.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 72829; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 0 A; 0 C; 3 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1208 AACAAACAAACAA 1220
              |||||||||||||
Db         13 AACAAACAAACAA 1


RESULT 369
ABC72813
ID   ABC72813 standard; DNA; 13 BP.
XX
AC   ABC72813;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 72830 for detecting SNP TSC0018809.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
```

```
XX
PS   Claim 1; SEQ ID 72830; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 10 A; 3 C; 0 G; 0 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1208 AACAAACAAACAA 1220
              |||||||||||||
Db          1 AACAAACAAACAA 13


RESULT 370
ABC78656
ID   ABC78656 standard; DNA; 13 BP.
XX
AC   ABC78656;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 78673 for detecting SNP TSC0020028.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 78673; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 0 C; 1 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1134 TATAGTAAATTTA 1146
              |||||||||||||
Db          1 TATAGTAAATTTA 13


RESULT 371
ABC78657/c
ID   ABC78657 standard; DNA; 13 BP.
XX
AC   ABC78657;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 78674 for detecting SNP TSC0020028.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 78674; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 1 C; 0 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1134 TATAGTAAATTTA 1146
              |||||||||||||
Db         13 TATAGTAAATTTA 1
```

```
RESULT 372
ABC81442
ID   ABC81442 standard; DNA; 13 BP.
XX
AC   ABC81442;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 81459 for detecting SNP TSC0020625.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 81459; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 2 A; 0 C; 0 G; 11 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1143 TTTATTTTATTTT 1155
              |||||||||||||
Db          1 TTTATTTTATTTT 13


RESULT 373
ABC81443/c
ID   ABC81443 standard; DNA; 13 BP.
XX
AC   ABC81443;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 81460 for detecting SNP TSC0020625.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 81460; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 11 A; 0 C; 0 G; 2 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1143 TTTATTTTATTTT 1155
              |||||||||||||
Db         13 TTTATTTTATTTT 1


RESULT 374
ABC83552
ID   ABC83552 standard; DNA; 13 BP.
XX
AC   ABC83552;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 83569 for detecting SNP TSC0021049.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
```

XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 83569; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 4 A; 0 C; 1 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1046 ATTTATGTATTTA 1058
||||||||||||
Db 1 ATTTATGTATTTA 13

RESULT 375
ABC83553/c
ID ABC83553 standard; DNA; 13 BP.
XX
AC ABC83553;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 83570 for detecting SNP TSC0021049.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 83570; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 1 C; 0 G; 4 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1046 ATTTATGTATTTA 1058
||||||||||||
Db 13 ATTTATGTATTTA 1

RESULT 376
ABC83568
ID ABC83568 standard; DNA; 13 BP.
XX
AC ABC83568;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 83585 for detecting SNP TSC0021059.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 83585; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 0 C; 1 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1048 TTATGTATTTATT 1060
              |||||||||||||
Db          1 TTATGTATTTATT 13
```

RESULT 377
ABC83569/c
ID ABC83569 standard; DNA; 13 BP.
XX
AC ABC83569;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 83586 for detecting SNP TSC0021059.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 83586; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 1 C; 0 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       1048 TTATGTATTTATT 1060
              |||||||||||||
Db         13 TTATGTATTTATT 1
```

RESULT 378
ABF01934
ID ABF01934 standard; DNA; 13 BP.
XX
AC ABF01934;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 101931 for detecting SNP TSC0025381.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 101931; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 2 A; 0 C; 3 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       1540 GATGTTTTTATGT 1552
              |||||||||||||
Db          1 GATGTTTTTATGT 13
```

RESULT 379
ABF01935/c
ID ABF01935 standard; DNA; 13 BP.
XX
AC ABF01935;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 101932 for detecting SNP TSC0025381.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.

XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 101932; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 3 C; 0 G; 2 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1540 GATGTTTTATGT 1552
||||||||||||
Db 13 GATGTTTTATGT 1

RESULT 380
ABF12532/c
ID ABF12532 standard; DNA; 13 BP.
XX
AC ABF12532;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 112529 for detecting SNP TSC0028137.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 112529; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 0 C; 0 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1139 TAAATTTATTTTA 1151
||||||||||||
Db 13 TAAATTTATTTTA 1

RESULT 381
ABF12533
ID ABF12533 standard; DNA; 13 BP.
XX
AC ABF12533;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 112530 for detecting SNP TSC0028137.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 112530; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.

```
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1139 TAAATTTATTTTA 1151
              |||||||||||||
Db          1 TAAATTTATTTTA 13


RESULT 382
ABF15742/c
ID   ABF15742 standard; DNA; 13 BP.
XX
AC   ABF15742;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 115739 for detecting SNP TSC0029016.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 115739; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 1 A; 0 C; 2 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        621 AAACAACAAATAA 633
               |||||||||||||
Db         13 AAACAACAAATAA 1


RESULT 383
ABF15743
ID   ABF15743 standard; DNA; 13 BP.
XX
AC   ABF15743;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 115740 for detecting SNP TSC0029016.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 115740; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 10 A; 2 C; 0 G; 1 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        621 AAACAACAAATAA 633
               |||||||||||||
Db          1 AAACAACAAATAA 13


RESULT 384
ABF16636/c
ID   ABF16636 standard; DNA; 13 BP.
XX
AC   ABF16636;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 116633 for detecting SNP TSC0029186.
```

```
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 116633; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1480 TTATAATATTATT 1492
             |||||||||||||
Db         13 TTATAATATTATT 1


RESULT 385
ABF16637
ID   ABF16637 standard; DNA; 13 BP.
XX
AC   ABF16637;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 116634 for detecting SNP TSC0029186.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 116634; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1480 TTATAATATTATT 1492
             |||||||||||||
Db         13 TTATAATATTATT 1


RESULT 386
ABF20442
ID   ABF20442 standard; DNA; 13 BP.
XX
AC   ABF20442;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 120439 for detecting SNP TSC0030053.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 120439; 29pp + Sequence Listing; German.
```

```
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 1 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1050 ATGTATTTATTTA 1062
              |||||||||||||
Db          1 ATGTATTTATTTA 13


RESULT 387
ABF20443/c
ID   ABF20443 standard; DNA; 13 BP.
XX
AC   ABF20443;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 120440 for detecting SNP TSC0030053.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 120440; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 1 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1050 ATGTATTTATTTA 1062
              |||||||||||||
Db          13 ATGTATTTATTTA 1


RESULT 388
ABF20500
ID   ABF20500 standard; DNA; 13 BP.
XX
AC   ABF20500;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 120497 for detecting SNP TSC0030072.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 120497; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1140 AAATTTATTTTAT 1152
              |||||||||||||
Db          1 AAATTTATTTTAT 13


RESULT 389
```

```
ABF20501/c
ID   ABF20501 standard; DNA; 13 BP.
XX
AC   ABF20501;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 120498 for detecting SNP TSC0030072.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A;  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 120498; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1140 AAATTTATTTTAT 1152
              |||||||||||||
Db         13 AAATTTATTTTAT 1


RESULT 390
ABF33284
ID   ABF33284 standard; DNA; 13 BP.
XX
AC   ABF33284;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133281 for detecting SNP TSC0033254.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 133281; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 2 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1196 GTTTTTAGATTAA 1208
              |||||||||||||
Db          1 GTTTTTAGATTAA 13


RESULT 391
ABF33285/c
ID   ABF33285 standard; DNA; 13 BP.
XX
AC   ABF33285;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133282 for detecting SNP TSC0033254.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
```

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XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 133282; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 2 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1196 GTTTTTAGATTAA 1208
              |||||||||||||
Db         13 GTTTTTAGATTAA 1


RESULT 392
ABF50618
ID   ABF50618 standard; DNA; 13 BP.
XX
AC   ABF50618;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 150615 for detecting SNP TSC0038010.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 150615; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 2 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1537 TAAGATGTTTTTA 1549
              |||||||||||||
Db          1 TAAGATGTTTTTA 13


RESULT 393
ABF50619/c
ID   ABF50619 standard; DNA; 13 BP.
XX
AC   ABF50619;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 150616 for detecting SNP TSC0038010.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 150616; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 2 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
```

```
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1537 TAAGATGTTTTTA 1549
              ||||||||||||||
Db         13 TAAGATGTTTTTA 1


RESULT 394
ABF53014
ID   ABF53014 standard; DNA; 13 BP.
XX
AC   ABF53014;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 153011 for detecting SNP TSC0038678.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 153011; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 0 C; 1 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1145 TATTTTATTTTAG 1157
              |||||||||||||
Db          1 TATTTTATTTTAG 13


RESULT 395
ABF53015/c
ID   ABF53015 standard; DNA; 13 BP.
XX
AC   ABF53015;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 153012 for detecting SNP TSC0038678.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 153012; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 9 A; 1 C; 0 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1145 TATTTTATTTTAG 1157
              |||||||||||||
Db         13 TATTTTATTTTAG 1


RESULT 396
ABF60866
ID   ABF60866 standard; DNA; 13 BP.
XX
AC   ABF60866;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 160863 for detecting SNP TSC0040506.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
```

XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 160863; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1151 ATTTTAGATATTA 1163
||||||||||||||
Db 1 ATTTTAGATATTA 13

RESULT 397
ABF60867/c
ID ABF60867 standard; DNA; 13 BP.
XX
AC ABF60867;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 160864 for detecting SNP TSC0040506.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 160864; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1151 ATTTTAGATATTA 1163
||||||||||||||
Db 13 ATTTTAGATATTA 1

RESULT 398
ABF65362/c
ID ABF65362 standard; DNA; 13 BP.
XX
AC ABF65362;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 165359 for detecting SNP TSC0041473.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 165359; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.

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CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 0 C; 0 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1616 TAAAATATAATTT 1628
              |||||||||||||
Db         13 TAAAATATAATTT 1


RESULT 399
ABF65363
ID   ABF65363 standard; DNA; 13 BP.
XX
AC   ABF65363;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165360 for detecting SNP TSC0041473.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 165360; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 0 C; 0 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1616 TAAAATATAATTT 1628
              |||||||||||||
Db          1 TAAAATATAATTT 13


RESULT 400
ABF68618/c
ID   ABF68618 standard; DNA; 13 BP.
XX
AC   ABF68618;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 168615 for detecting SNP TSC0008285.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 168615; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 1 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1526 ATTTTTAACTTTA 1538
              |||||||||||||
Db         13 ATTTTTAACTTTA 1


RESULT 401
ABF68619
ID   ABF68619 standard; DNA; 13 BP.
XX
AC   ABF68619;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 168616 for detecting SNP TSC0008285.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
```

KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 168616; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 4 A; 1 C; 0 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1526 ATTTTTAACTTTA 1538
||||||||||||||
Db 1 ATTTTTAACTTTA 13

RESULT 402
ABF71788
ID ABF71788 standard; DNA; 13 BP.
XX
AC ABF71788;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 171785 for detecting SNP TSC0042822.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 171785; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 633 ATTTTTGAATATA 645
||||||||||||||
Db 1 ATTTTTGAATATA 13

RESULT 403
ABF71789/c
ID ABF71789 standard; DNA; 13 BP.
XX
AC ABF71789;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 171786 for detecting SNP TSC0042822.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 171786; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic

```
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        633 ATTTTTGAATATA 645
              |||||||||||||
Db         13 ATTTTTGAATATA 1


RESULT 404
ABF83258
ID   ABF83258 standard; DNA; 13 BP.
XX
AC   ABF83258;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 183255 for detecting SNP TSC0045246.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 183255; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 0 C; 1 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        629 AATAATTTTTGAA 641
              |||||||||||||
Db          1 AATAATTTTTGAA 13


RESULT 405
ABF83259/c
ID   ABF83259 standard; DNA; 13 BP.
XX
AC   ABF83259;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 183256 for detecting SNP TSC0045246.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 183256; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 1 C; 0 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        629 AATAATTTTTGAA 641
              |||||||||||||
Db         13 AATAATTTTTGAA 1


RESULT 406
ABF83902/c
ID   ABF83902 standard; DNA; 13 BP.
```

XX
AC ABF83902;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 183899 for detecting SNP TSC0004785.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 183899; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 2 A; 0 C; 2 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 611 AATCTACAAAAAA 623
||||||||||||
Db 13 AATCTACAAAAAA 1

RESULT 407
ABF83903
ID ABF83903 standard; DNA; 13 BP.
XX
AC ABF83903;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 183900 for detecting SNP TSC0004785.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 183900; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 2 C; 0 G; 2 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 611 AATCTACAAAAAA 623
||||||||||||
Db 1 AATCTACAAAAAA 13

RESULT 408
ABF88502
ID ABF88502 standard; DNA; 13 BP.
XX
AC ABF88502;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 188499 for detecting SNP TSC0046423.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.

```
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 188499; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 0 C; 1 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1618 AAATATAATTTGT 1630
              |||||||||||||
Db          1 AAATATAATTTGT 13


RESULT 409
ABF88503/c
ID   ABF88503 standard; DNA; 13 BP.
XX
AC   ABF88503;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 188500 for detecting SNP TSC0046423.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 188500; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 1 C; 0 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1618 AAATATAATTTGT 1630
              |||||||||||||
Db          13 AAATATAATTTGT 1


RESULT 410
ABF94864
ID   ABF94864 standard; DNA; 13 BP.
XX
AC   ABF94864;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 194861 for detecting SNP TSC0005457.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 194861; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy       1197 TTTTTAGATTAAA 1209
              |||||||||||||
Db          1 TTTTTAGATTAAA 13
```

RESULT 411
ABF94865/c
ID ABF94865 standard; DNA; 13 BP.
XX
AC ABF94865;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 194862 for detecting SNP TSC0005457.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 194862; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

  Query Match   1.0%; Score 13; DB 1; Length 13;
  Best Local Similarity   100.0%; Pred. No. 3.1e+02;
  Matches   13; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

```
Qy       1197 TTTTTAGATTAAA 1209
              |||||||||||||
Db         13 TTTTTAGATTAAA 1
```

RESULT 412
ABH13810
ID ABH13810 standard; DNA; 13 BP.
XX
AC ABH13810;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 213787 for detecting SNP TSC0052043.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 213787; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 0 C; 2 G; 8 T; 0 other;

  Query Match   1.0%; Score 13; DB 1; Length 13;
  Best Local Similarity   100.0%; Pred. No. 3.1e+02;
  Matches   13; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

```
Qy       1536 TTAAGATGTTTTT 1548
              |||||||||||||
Db          1 TTAAGATGTTTTT 13
```

RESULT 413
ABH13811/c
ID ABH13811 standard; DNA; 13 BP.
XX
AC ABH13811;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 213788 for detecting SNP TSC0052043.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.

```
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 213788; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 2 C; 0 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1536 TTAAGATGTTTTT 1548
              |||||||||||||
Db         13 TTAAGATGTTTTT 1

RESULT 414
ABH23148
ID   ABH23148 standard; DNA; 13 BP.
XX
AC   ABH23148;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 223125 for detecting SNP TSC0054328.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 223125; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1136 TAGTAAATTTATT 1148
              |||||||||||||
Db          1 TAGTAAATTTATT 13

RESULT 415
ABH23149/c
ID   ABH23149 standard; DNA; 13 BP.
XX
AC   ABH23149;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 223126 for detecting SNP TSC0054328.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 223126; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
```

```
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1136 TAGTAAATTTATT 1148
              |||||||||||||
Db         13 TAGTAAATTTATT 1


RESULT 416
ABH27672
ID   ABH27672 standard; DNA; 13 BP.
XX
AC   ABH27672;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 227649 for detecting SNP TSC0055515.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 227649; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 2 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1587 TGGAAATATAAAA 1599
              |||||||||||||
Db          1 TGGAAATATAAAA 13


RESULT 417
ABH27673/c
ID   ABH27673 standard; DNA; 13 BP.
XX
AC   ABH27673;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 227650 for detecting SNP TSC0055515.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 227650; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 2 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1587 TGGAAATATAAAA 1599
              |||||||||||||
Db         13 TGGAAATATAAAA 1


RESULT 418
ABH29396
ID   ABH29396 standard; DNA; 13 BP.
XX
AC   ABH29396;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 229373 for detecting SNP TSC0055957.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
```

XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 229373; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 0 C; 1 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1045 TATTTATGTATTT 1057
||||||||||||||
Db 1 TATTTATGTATTT 13

RESULT 419
ABH29397/c
ID ABH29397 standard; DNA; 13 BP.
XX
AC ABH29397;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 229374 for detecting SNP TSC0055957.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 229374; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 1 C; 0 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1045 TATTTATGTATTT 1057
||||||||||||||
Db 13 TATTTATGTATTT 1

RESULT 420
ABH37864
ID ABH37864 standard; DNA; 13 BP.
XX
AC ABH37864;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 237841 for detecting SNP TSC0058010.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 237841; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The

```
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1194 GGGTTTTTAGATT 1206
              |||||||||||||
Db          1 GGGTTTTTAGATT 13


RESULT 421
ABH37865/c
ID   ABH37865 standard; DNA; 13 BP.
XX
AC   ABH37865;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 237842 for detecting SNP TSC0058010.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 237842; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1194 GGGTTTTTAGATT 1206
              |||||||||||||
Db          13 GGGTTTTTAGATT 1


RESULT 422
ABH48890
ID   ABH48890 standard; DNA; 13 BP.
XX
AC   ABH48890;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 248867 for detecting SNP TSC0060809.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 248867; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 0 C; 1 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1146 ATTTTATTTTAGA 1158
              |||||||||||||
Db          1 ATTTTATTTTAGA 13


RESULT 423
ABH48891/c
ID   ABH48891 standard; DNA; 13 BP.
XX
AC   ABH48891;
```

XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 248868 for detecting SNP TSC0060809.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 248868; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 1 C; 0 G; 4 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1146 ATTTTATTTTAGA 1158
||||||||||||
Db 13 ATTTTATTTTAGA 1

RESULT 424
ABH49486/c
ID ABH49486 standard; DNA; 13 BP.
XX
AC ABH49486;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 249463 for detecting SNP TSC0060939.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 249463; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 2 A; 0 C; 2 G; 9 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1205 TTAAACAAACAAA 1217
||||||||||||
Db 13 TTAAACAAACAAA 1

RESULT 425
ABH49487
ID ABH49487 standard; DNA; 13 BP.
XX
AC ABH49487;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 249464 for detecting SNP TSC0060939.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is

PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 249464; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 9 A; 2 C; 0 G; 2 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1205 TTAAACAAACAAA 1217
||||||||||||
Db 1 TTAAACAAACAAA 13

RESULT 426
ABH53272/c
ID ABH53272 standard; DNA; 13 BP.
XX
AC ABH53272;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 253249 for detecting SNP TSC0061766.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 253249; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 8 A; 0 C; 2 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1558 CCAAATTTTTTTT 1570
||||||||||||
Db 13 CCAAATTTTTTTT 1

RESULT 427
ABH53273
ID ABH53273 standard; DNA; 13 BP.
XX
AC ABH53273;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 253250 for detecting SNP TSC0061766.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 253250; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 3 A; 2 C; 0 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1558 CCAAATTTTTTTT 1570
||||||||||||

```
Db          1 CCAAATTTTTTTT 13


RESULT 428
ABH53668/c
ID   ABH53668 standard; DNA; 13 BP.
XX
AC   ABH53668;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 253645 for detecting SNP TSC0061845.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 253645; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 2 A; 0 C; 2 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        622 AACAACAAATAAT 634
              |||||||||||||
Db         13 AACAACAAATAAT 1


RESULT 429
ABH53669
ID   ABH53669 standard; DNA; 13 BP.
XX
AC   ABH53669;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 253646 for detecting SNP TSC0061845.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 253646; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 9 A; 2 C; 0 G; 2 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        622 AACAACAAATAAT 634
              |||||||||||||
Db          1 AACAACAAATAAT 13


RESULT 430
ABH55558
ID   ABH55558 standard; DNA; 13 BP.
XX
AC   ABH55558;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 255535 for detecting SNP TSC0062287.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
```

XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 255535; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1427 ATATTAGTAATTT 1439
||||||||||||
Db 1 ATATTAGTAATTT 13

RESULT 431
ABH55559/c
ID ABH55559 standard; DNA; 13 BP.
XX
AC ABH55559;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 255536 for detecting SNP TSC0062287.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 255536; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1427 ATATTAGTAATTT 1439
||||||||||||
Db 13 ATATTAGTAATTT 1

RESULT 432
ABH57674
ID ABH57674 standard; DNA; 13 BP.
XX
AC ABH57674;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 257651 for detecting SNP TSC0062680.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB00713.
XX
PR 07-APR-2000; 2000DE-1019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single nucleotide polymorphisms and cytosine
PT methylation status -
XX
PS Claim 1; SEQ ID 257651; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation.
CC ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC ABI00010-ABI82073 represent the oligomers described in the invention.
CC NOTE: The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX

```
SQ   Sequence 13 BP; 5 A; 0 C; 2 G; 6 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1163 AAATGATGTTTTA 1175
              |||||||||||||
Db          1 AAATGATGTTTTA 13


RESULT 433
ABH57675/c
ID   ABH57675 standard; DNA; 13 BP.
XX
AC   ABH57675;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 257652 for detecting SNP TSC0062680.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 257652; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 6 A; 2 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1163 AAATGATGTTTTA 1175
              |||||||||||||
Db         13 AAATGATGTTTTA 1


RESULT 434
ABH58412
ID   ABH58412 standard; DNA; 13 BP.
XX
AC   ABH58412;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258389 for detecting SNP TSC0062829.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 258389; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 5 A; 0 C; 1 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1486 TATTATTTAAATG 1498
              |||||||||||||
Db          1 TATTATTTAAATG 13


RESULT 435
ABH58413/c
ID   ABH58413 standard; DNA; 13 BP.
XX
AC   ABH58413;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258390 for detecting SNP TSC0062829.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
```

```
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 258390; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 7 A; 1 C; 0 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1486 TATTATTTAAATG 1498
              |||||||||||||
Db         13 TATTATTTAAATG 1


RESULT 436
ABH62638
ID   ABH62638 standard; DNA; 13 BP.
XX
AC   ABH62638;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 262615 for detecting SNP TSC0009751.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 262615; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 2 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1586 ATGGAAATATAAA 1598
              |||||||||||||
Db          1 ATGGAAATATAAA 13


RESULT 437
ABH62639/c
ID   ABH62639 standard; DNA; 13 BP.
XX
AC   ABH62639;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 262616 for detecting SNP TSC0009751.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 262616; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
```

```
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 3 A; 2 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1586 ATGGAAATATAAA 1598
              |||||||||||||
Db         13 ATGGAAATATAAA 1


RESULT 438
ABH66082/c
ID   ABH66082 standard; DNA; 13 BP.
XX
AC   ABH66082;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 266059 for detecting SNP TSC0064472.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 266059; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 8 A; 0 C; 1 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1523 TATATTTTTAACT 1535
              |||||||||||||
Db         13 TATATTTTTAACT 1


RESULT 439
ABH66083
ID   ABH66083 standard; DNA; 13 BP.
XX
AC   ABH66083;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 266060 for detecting SNP TSC0064472.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB00713.
XX
PR   07-APR-2000; 2000DE-1019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single nucleotide polymorphisms and cytosine
PT   methylation status  -
XX
PS   Claim 1; SEQ ID 266060; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation.
CC   ABC00010-ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and
CC   ABI00010-ABI82073 represent the oligomers described in the invention.
CC   NOTE: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 13 BP; 4 A; 1 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1523 TATATTTTTAACT 1535
              |||||||||||||
Db          1 TATATTTTTAACT 13


RESULT 440
AAT56348
ID   AAT56348 standard; RNA; 15 BP.
XX
AC   AAT56348;
XX
DT   25-MAR-2003  (updated)
```

DT 14-MAY-1997 (first entry)
XX
DE Mouse TNF-a hammerhead ribozyme target sequence (nt position 1319).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Mus musculus.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.
PR 16-DEC-1994; 94US-0357577.
PR 23-DEC-1994; 94US-0363233.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-adamic J, Mcswiggen JA;
PI Modak A, Pavco P, Beigleman L, Sullivan SM, Sweedler D;
PI Thompson JD, Tracz D, Usman N, Wincott FE, Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them -
PT for use in inhibiting disease related genes
XX
PS Claim 2; Page 252; 407pp; English.
XX
CC The present sequence represents a preferred target sequence for an
CC enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC mRNA at the nucleotide base position indicated in the DE line.
CC Regions of the mRNA that do not form secondary folding
CC structures and that contain potential hammerhead and hairpin
CC ribozyme cleavage sites were identified by computer analysis.
CC Ribozymes directed against these mRNA sequences were designed and
CC synthesised with modifications that improve their nuclease
CC resistance. The ribozymes are designed to cleave the target
CC sequences and thereby inhibit TNF-alpha expression, making them
CC potentially useful for treating rheumatoid arthritis, septic shock
CC and other inflammatory disorders including psoriasis, as well as
CC for treatment of AIDS.
CC (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 15;
Best Local Similarity 30.8%; Pred. No. 3.5e+02;
Matches 4; Conservative 9; Mismatches 0; Indels 0; Gaps 0;

Qy 1038 TATTTATTATTTA 1050
:|:::|::|:::|
Db 3 UAUUUAUUAUUUA 15

RESULT 441
AAT56318
ID AAT56318 standard; RNA; 15 BP.
XX
AC AAT56318;
XX
DT 25-MAR-2003 (updated)
DT 14-MAY-1997 (first entry)
XX
DE Mouse TNF-a hammerhead ribozyme target sequence (nt position 1308).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Mus musculus.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.

```
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 252; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 5 A; 0 C; 0 G; 10 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   30.8%;  Pred. No. 3.5e+02;
  Matches    4;  Conservative    9;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTA 1050
              :|:::|::|:::|
Db          3 UAUUUAUUAUUUA 15


RESULT 442
AAT55809
ID   AAT55809 standard; RNA; 15 BP.
XX
AC   AAT55809;
XX
DT   25-MAR-2003  (updated)
DT   25-MAR-1997  (first entry)
XX
DE   Human TNF-alpha hammerhead ribozyme target sequence (nt position 1267).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 243; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes are designed to cleave the target
CC   sequences and thereby inhibit TNF-alpha expression, making them
CC   potentially useful for treating rheumatoid arthritis, septic shock
CC   and other inflammatory disorders including psoriasis, as well as
CC   for treatment of AIDS.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 4 A; 0 C; 0 G; 11 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   30.8%;  Pred. No. 3.5e+02;
  Matches    4;  Conservative    9;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTA 1050
              :|:::|::|:::|
Db          3 UAUUUAUUAUUUA 15


RESULT 443
AAT55794
ID   AAT55794 standard; RNA; 15 BP.
XX
AC   AAT55794;
```

XX
DT 25-MAR-2003 (updated)
DT 25-MAR-1997 (first entry)
XX
DE Human TNF-alpha hammerhead ribozyme target sequence (nt position 1256).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Homo sapiens.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.
PR 10-NOV-1994; 94US-0337608.
PR 28-NOV-1994; 94US-0345516.
PR 16-DEC-1994; 94US-0357577.
PR 23-DEC-1994; 94US-0363233.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-adamic J, Mcswiggen JA;
PI Modak A, Pavco P, Beigleman L, Sullivan SM, Sweedler D;
PI Thompson JD, Tracz D, Usman N, Wincott FE, Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them -
PT for use in inhibiting disease related genes
XX
PS Claim 2; Page 242; 407pp; English.
XX
CC The present sequence represents a preferred target sequence for an
CC enzymatic nucleic acid (i.e. a ribozyme) which cleaves TNF-alpha
CC mRNA at the nucleotide base position indicated in the DE line.
CC Regions of the mRNA that do not form secondary folding
CC structures and that contain potential hammerhead and hairpin
CC ribozyme cleavage sites were identified by computer analysis.
CC Ribozymes directed against these mRNA sequences were designed and
CC synthesised with modifications that improve their nuclease
CC resistance. The ribozymes are designed to cleave the target
CC sequences and thereby inhibit TNF-alpha expression, making them
CC potentially useful for treating rheumatoid arthritis, septic shock
CC and other inflammatory disorders including psoriasis, as well as
CC for treatment of AIDS.
CC (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ Sequence 15 BP; 5 A; 0 C; 0 G; 10 U; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 15;
Best Local Similarity 30.8%; Pred. No. 3.5e+02;
Matches 4; Conservative 9; Mismatches 0; Indels 0; Gaps 0;

Qy 1038 TATTTATTATTTA 1050
:|:::|::|:::|
Db 3 UAUUUAUUAUUUA 15

RESULT 444
AAT57265/c
ID AAT57265 standard; RNA; 15 BP.
XX
AC AAT57265;
XX
DT 25-MAR-2003 (updated)
DT 15-MAR-1997 (first entry)
XX
DE RSV N hammerhead ribozyme target sequence (nt. position 383).
XX
KW Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW intercellular adhesion molecule; rel A; tumour necrosis factor;
KW TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW translocation; chronic myelogenous leukaemia; CML; cancer;
KW Philadelphia chromosome; inflammation; autoimmune disease;
KW atherosclerosis; myocardial infarction; stroke; restenosis;
KW transplant rejection; rheumatoid arthritis; psoriasis;
KW myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW human immunodeficiency virus; acquired immune deficiency syndrome;
KW AIDS; ss.
XX
OS Respiratory Syncytial Virus.
XX
PN WO9523225-A2.
XX
PD 31-AUG-1995.
XX
PF 23-FEB-1995; 95WO-IB00156.
XX
PR 30-JAN-1995; 95US-0380734.
PR 23-FEB-1994; 94US-0201109.
PR 29-MAR-1994; 94US-0218934.
PR 04-APR-1994; 94US-0222795.
PR 07-APR-1994; 94US-0224483.
PR 15-APR-1994; 94US-0227958.
PR 15-APR-1994; 94US-0228041.
PR 18-MAY-1994; 94US-0245736.
PR 06-JUL-1994; 94US-0271280.
PR 15-AUG-1994; 94US-0291932.
PR 16-AUG-1994; 94US-0291433.
PR 17-AUG-1994; 94US-0292620.
PR 19-AUG-1994; 94US-0293520.
PR 02-SEP-1994; 94US-0300000.
PR 08-SEP-1994; 94US-0303039.
PR 23-SEP-1994; 94US-0311486.
PR 23-SEP-1994; 94US-0311749.
PR 28-SEP-1994; 94US-0314397.
PR 03-OCT-1994; 94US-0316771.
PR 07-OCT-1994; 94US-0319492.
PR 11-OCT-1994; 94US-0321993.
PR 04-NOV-1994; 94US-0334847.

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PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them  -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 274; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves mRNA coding
CC   for a protein of respiratory syncytial virus (RSV) at the
CC   nucleotide base position indicated in the DE line. Regions of
CC   the mRNA that do not form secondary folding structures and that
CC   contain potential hammerhead and hairpin ribozyme cleavage sites
CC   were identified by computer analysis. Ribozymes directed against
CC   these mRNA sequences were designed and synthesised with modifications
CC   that improve their nuclease resistance. The ribozymes cleave the
CC   target sequences and can be used for treatment and diagnosis of
CC   RSV infection.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 15 BP; 7 A; 3 C; 1 G; 4 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        525 ATTTGAATTTCAG 537
              |||||||||||||
Db         13 ATTTGAATTTCAG 1


RESULT 445
AAT93825/c
ID   AAT93825 standard; DNA; 15 BP.
XX
AC   AAT93825;
XX
DT   25-MAR-2003  (updated)
DT   24-FEB-1998  (first entry)
XX
DE   Antitumoural phosphodiester oligonucleotide 15 with cytotoxic activity.
XX
KW   Phosphodiester; selective binding; cell viability; growth;
KW   tumoural cell line; cytotoxic activity; tumour cell; lymphoma;
KW   lymphoblastic tumour; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1..15
FT                    /*tag=  a
FT                    /note= "phosphodiester oligonucleotide"
XX
PN   WO9720924-A1.
XX
PD   12-JUN-1997.
XX
PF   04-DEC-1996;   96WO-EP05388.
XX
PR   04-DEC-1995;   95IT-MI02539.
XX
PA   (SAIC-) SAICOM SRL.
XX
PI   Quadrifoglio F,  Scaggiante B;
XX
DR   WPI; 1997-319771/29.
XX
PT   New phospho:di:esteric oligo:nucleotide(s) - which exert a specific
PT   and selective cytotoxic effect on tumour cells, for treating both
PT   solid and liquid tumours
XX
PS   Claim 10; Page 6; 38pp; English.
XX
CC   Novel phosphodiesteric oligonucleotides AAT93811-27 are based on the
CC   generic formula, in the 3'-5' or 5'-3' direction:
CC   (GaTa')a''-(GbTb')b''-(GcTc')c''-(GdTd')d''-(GeTe')e''-(GfTf')f''-
CC   (G-gTg')g''-N', where:
CC   N and N' = T or G, equal or different from each other;
CC   x = 0-8, equal or different from each other;
CC   a, b, c, d, e, f, and g = 0-10, equal or different from each other;
CC   a', b', c', d', e', f', and g' = 0-30, equal or different from each
CC   other;
CC   a'', b'', c'', d'', e'', f'', and g'' = 1-16, equal or different from
CC   each other;
CC   The oligonucleotides are believed to selectively bind and sequester
CC   some proteins which are essential to the viability and growth of
CC   tumoural cell line. They have specific and selective cytotoxic activity
CC   against tumour cells, and can be used for treating tumours of the liquid
CC   type, in particular of lymphoblastic origin, and of solid type, in
CC   particular lymphomas.
CC   (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence 15 BP; 0 A; 0 C; 4 G; 11 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACA 1219
              |||||||||||||
Db         13 AAACAAACAAACA 1


RESULT 446
AAF70068
ID   AAF70068 standard; DNA; 15 BP.
XX
AC   AAF70068;
XX
DT   18-APR-2001  (first entry)
XX
DE   Human TNFRSF11B gene ASO probe, SEQ ID NO: 124.
XX
KW   Human; TNFRSF11B; osteoclastogenesis inhibitory factor;
KW   single nucleotide polymorphism; SNP; osteoclast recruitment;
KW   osteoclast function; osteoporosis; metastatic bone disease;
KW   Paget's disease; rheumatoid arthritis; periodontal bone disease;
KW   ASO; allele-specific oligonucleotide; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200104137-A1.
XX
PD   18-JAN-2001.
XX
PF   10-JUL-2000; 2000WO-US18803.
XX
PR   09-JUL-1999;   99US-0143020.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Chew A,  Denton RR,  Duda A,  Nandabalan K,  Stephens JC;
XX
DR   WPI; 2001-147175/15.
```

```
XX
PT   Human Osteoclastogenesis Inhibitory Factor nucleotides, comprising
PT   single nucleotide polymorphisms, useful for studying e.g. osteoporosis,
PT   Paget's disease and rheumatoid arthritis -
XX
PS   Claim 15; Page 23; 114pp; English.
XX
CC   The present sequence is a probe used to detect polymorphisms in the human
CC   osteoclastogenesis inhibitory factor (TNFRSF11B). Polynucleotides
CC   comprising one or more of twenty four novel single nucleotide
CC   polymorphisms in the TNFRSF11B gene have been identified. TNFRSF11B
CC   regulate osteoclast recruitment and function. An understanding of
CC   variations in the gene should thus be useful in developing new therapies
CC   for metabolic disorders caused by abnormal osteoclast recruitment and
CC   function such as osteoporosis, metastatic bone disease, Paget's disease,
CC   rheumatoid arthritis and periodontal bone disease.
XX
SQ   Sequence 15 BP; 4 A; 0 C; 1 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1147 TTTTATTTTAGAT 1159
              |||||||||||||
Db          1 TTTTATTTTAGAT 13


RESULT 447
AAF70070
ID   AAF70070 standard; DNA; 15 BP.
XX
AC   AAF70070;
XX
DT   18-APR-2001  (first entry)
XX
DE   Human TNFRSF11B gene ASO probe, SEQ ID NO: 126.
XX
KW   Human; TNFRSF11B; osteoclastogenesis inhibitory factor;
KW   single nucleotide polymorphism; SNP; osteoclast recruitment;
KW   osteoclast function; osteoporosis; metastatic bone disease;
KW   Paget's disease; rheumatoid arthritis; periodontal bone disease;
KW   ASO; allele-specific oligonucleotide; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200104137-A1.
XX
PD   18-JAN-2001.
XX
PF   10-JUL-2000; 2000WO-US18803.
XX
PR   09-JUL-1999;   99US-0143020.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Chew A,  Denton RR,  Duda A,  Nandabalan K,  Stephens JC;
XX
DR   WPI; 2001-147175/15.
XX
PT   Human Osteoclastogenesis Inhibitory Factor nucleotides, comprising
PT   single nucleotide polymorphisms, useful for studying e.g. osteoporosis,
PT   Paget's disease and rheumatoid arthritis -
XX
PS   Claim 15; Page 23; 114pp; English.
XX
CC   The present sequence is a probe used to detect polymorphisms in the human
CC   osteoclastogenesis inhibitory factor (TNFRSF11B). Polynucleotides
CC   comprising one or more of twenty four novel single nucleotide
CC   polymorphisms in the TNFRSF11B gene have been identified. TNFRSF11B
CC   regulate osteoclast recruitment and function. An understanding of
CC   variations in the gene should thus be useful in developing new therapies
CC   for metabolic disorders caused by abnormal osteoclast recruitment and
CC   function such as osteoporosis, metastatic bone disease, Paget's disease,
CC   rheumatoid arthritis and periodontal bone disease.
XX
SQ   Sequence 15 BP; 4 A; 0 C; 2 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1147 TTTTATTTTAGAT 1159
              |||||||||||||
Db          1 TTTTATTTTAGAT 13


RESULT 448
ABT04008/c
ID   ABT04008 standard; DNA; 15 BP.
XX
AC   ABT04008;
XX
DT   25-SEP-2002  (first entry)
XX
DE   Human ovary specific coding sequence SEQ ID NO: 27.
XX
KW   Human; ovary; ovarian cancer; ovarian disease; gene therapy; gene;
KW   cytostatic; ds.
XX
OS   Homo sapiens.
XX
PN   WO200240720-A2.
XX
PD   23-MAY-2002.
XX
PF   20-NOV-2001; 2001WO-US45010.
XX
PR   20-NOV-2000; 2000US-249997P.
XX
PA   (DIAD-) DIADEXUS INC.
XX
PI   Salceda S,  Macina RA,  Recipon H,  Cafferkey R,  Sun Y,  Liu C;
XX
DR   WPI; 2002-547588/58.
XX
PT   New ovary polypeptides useful for detecting, diagnosing, monitoring,
PT   treating, staging and imaging cancers in humans having cancer and
PT   non-cancerous ovary disease  -
XX
PS   Claim 1; Page 162; 296pp; English.
XX
CC   The present invention provides human proteins and coding sequences
CC   specifically found in ovary cells. These can be used in the diagnosis and
CC   treatment of ovarian diseases, including cancer. The present sequence is
CC   a coding sequence of the invention.
XX
SQ   Sequence 15 BP; 11 A; 0 C; 0 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1038 TATTTATTATTTA 1050
              |||||||||||||
Db         13 TATTTATTATTTA 1


RESULT 449
AAQ23015/c
ID   AAQ23015 standard; DNA; 17 BP.
XX
AC   AAQ23015;
XX
DT   25-MAR-2003  (updated)
DT   19-NOV-1992  (first entry)
```

XX
DE Pro-UK probe T6 (Td = 52).
XX
KW Prourokinase; vascular endothelial cell; ss.
XX
OS Synthetic.
XX
PN JP04053489-A.
XX
PD 21-FEB-1992.
XX
PF 21-JUN-1990; 90JP-0163144.
XX
PR 21-JUN-1990; 90JP-0163144.
XX
PA (TAIS) TAISHO PHARM CO LTD.
XX
DR WPI; 1992-110627/14.
XX
PT Efficient prodn. of pro-urokinase by genetic engineering -by
PT transforming host cell by expression vector of deoxyribonucleic
PT acid of human vascular endothelial cell, and culturing
XX
PS Disclosure; Fig 8; 16pp; Japanese.
XX
CC The probes represented in AAQ23010-15 were used in the prodn. of
CC human pro-UK cDNA (example 3 (page 7)).
CC Prepn. of pro-UK comprises transforming a host cell with an
CC expression vector contg. cDNA encoding pro-UK, derived from human
CC vascular endothelial cells. The resultant transformant is cultured.
CC The new type of pro-UK can be produced efficiently in large amts.
CC (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ Sequence 17 BP; 8 A; 4 C; 5 G; 0 U; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1437 TTTCTTGCTGGTT 1449
||||||||||||||
Db 13 TTTCTTGCTGGTT 1

RESULT 450
AAQ65895/c
ID AAQ65895 standard; DNA; 17 BP.
XX
AC AAQ65895;
XX
DT 25-MAR-2003 (updated)
DT 22-DEC-1994 (first entry)
XX
DE Type II procollagen sequencing primer 86.
XX
KW Type II procollagen; COL2A1; amplification; primer;
KW polymerase chain reaction; PCR; osteoarthritis; cartilage; ss.
XX
OS Synthetic.
XX
PN WO9411532-A1.
XX
PD 26-MAY-1994.
XX
PF 12-NOV-1993; 93WO-US10964.
XX
PR 13-NOV-1992; 92US-0977284.
XX
PA (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI Ahmad NN, Ala-Kokko L, Baldwin C, Hopkinson I, Prockop DJ;
PI Ritvaniemi P, Williams CJ;
XX
DR WPI; 1994-183530/22.
XX
PT Detecting genetic pre-disposition to osteoarthritis - and other
PT diseases involving mutation in cartilage protein genes, by
PT amplification and analysis of DNA and comparison with standards
XX
PS Claim 18; Page 30; 112pp; English.
XX
CC Claim 18 claims primers for use in detecting mutations in a
CC mammalian gene for a structural protein of cartilage comprising
CC a sequence identified in Table I (Page 18-31). Table I includes
CC 179 primer sequences (see AAQ65728-Q65906).
CC The following details are given for primer 86:
CC Alt. code: DH-78
CC Region/exon: 49
CC Direction: sense
CC Primer position: 20135
CC (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 17 BP; 6 A; 3 C; 3 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 744 TTTGCTAGAATGT 756
||||||||||||||
Db 15 TTTGCTAGAATGT 3

RESULT 451
AAV97734
ID AAV97734 standard; RNA; 17 BP.
XX
AC AAV97734;
XX
DT 17-MAR-1999 (first entry)
XX
DE Human EGF-R target sequence nucleotide position 4156.
XX
KW Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW cancer; genetic drift; detection; mutation; ss.
XX
OS Homo sapiens.
XX
PN WO9833893-A2.
XX
PD 06-AUG-1998.
XX
PF 14-JAN-1998; 98WO-US00730.
XX
PR 04-DEC-1997; 97US-0985162.
PR 31-JAN-1997; 97US-0036476.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (UYAS-) UNIV ASTON.
XX
PI Akhtar S, Fell P, McSwiggen JA;
XX
DR WPI; 1998-437449/37.
XX
PT Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT growth factor receptor, useful for inhibiting cell proliferation and
PT for treating cancers
XX
PS Claim 5; Page 78; 109pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules (NAMs)
CC which specifically cleave RNA derived from an epidermal growth factor
CC receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC represent specifically claimed target sequence from human EGF-R. AAV98044
CC to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and

```
CC   hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC   cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC   expression levels e.g. to inhibit cell proliferation in the prevention or
CC   treatment of cancers. The NAMs can also be used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of EGF-R RNA in a cell.
XX
SQ   Sequence 17 BP; 2 A; 1 C; 4 G; 10 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   38.5%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    8;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        550 AGTTTTTCATTGT 562
              ||:::::||::|:
Db          5 AGUUUUUCAUUGU 17


RESULT 452
AAV97735
ID   AAV97735 standard; RNA; 17 BP.
XX
AC   AAV97735;
XX
DT   17-MAR-1999  (first entry)
XX
DE   Human EGF-R target sequence nucleotide position 4157.
XX
KW   Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW   hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW   cancer; genetic drift; detection; mutation; ss.
XX
OS   Homo sapiens.
XX
PN   WO9833893-A2.
XX
PD   06-AUG-1998.
XX
PF   14-JAN-1998;   98WO-US00730.
XX
PR   04-DEC-1997;   97US-0985162.
PR   31-JAN-1997;   97US-0036476.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (UYAS-) UNIV ASTON.
XX
PI   Akhtar S,  Fell P,  McSwiggen JA;
XX
DR   WPI; 1998-437449/37.
XX
PT   Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT   growth factor receptor, useful for inhibiting cell proliferation and
PT   for treating cancers
XX
PS   Claim 5; Page 78; 109pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules (NAMs)
CC   which specifically cleave RNA derived from an epidermal growth factor
CC   receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC   represent specifically claimed target sequence from human EGF-R. AAV98044
CC   to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and
CC   hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC   cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC   expression levels e.g. to inhibit cell proliferation in the prevention or
CC   treatment of cancers. The NAMs can also be used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of EGF-R RNA in a cell.
XX
SQ   Sequence 17 BP; 2 A; 2 C; 4 G; 9 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   38.5%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    8;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        550 AGTTTTTCATTGT 562
              ||:::::||::|:
Db          4 AGUUUUUCAUUGU 16


RESULT 453
AAV97736
ID   AAV97736 standard; RNA; 17 BP.
XX
AC   AAV97736;
XX
DT   17-MAR-1999  (first entry)
XX
DE   Human EGF-R target sequence nucleotide position 4158.
XX
KW   Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW   hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW   cancer; genetic drift; detection; mutation; ss.
XX
OS   Homo sapiens.
XX
PN   WO9833893-A2.
XX
PD   06-AUG-1998.
XX
PF   14-JAN-1998;   98WO-US00730.
XX
PR   04-DEC-1997;   97US-0985162.
PR   31-JAN-1997;   97US-0036476.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (UYAS-) UNIV ASTON.
XX
PI   Akhtar S,  Fell P,  McSwiggen JA;
XX
DR   WPI; 1998-437449/37.
XX
PT   Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT   growth factor receptor, useful for inhibiting cell proliferation and
PT   for treating cancers
XX
PS   Claim 5; Page 78; 109pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules (NAMs)
CC   which specifically cleave RNA derived from an epidermal growth factor
CC   receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC   represent specifically claimed target sequence from human EGF-R. AAV98044
CC   to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and
CC   hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC   cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC   expression levels e.g. to inhibit cell proliferation in the prevention or
CC   treatment of cancers. The NAMs can also be used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of EGF-R RNA in a cell.
XX
SQ   Sequence 17 BP; 2 A; 2 C; 5 G; 8 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   38.5%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    8;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        550 AGTTTTTCATTGT 562
              ||:::::||::|:
Db          3 AGUUUUUCAUUGU 15


RESULT 454
AAV97737
ID   AAV97737 standard; RNA; 17 BP.
XX
AC   AAV97737;
XX
```

```
DT   17-MAR-1999  (first entry)
XX
DE   Human EGF-R target sequence nucleotide position 4159.
XX
KW   Human; epidermal growth factor receptor; EGFR; EGF-R; target sequence;
KW   hammerhead ribozyme; hairpin ribozyme; inhibition; cell proliferation;
KW   cancer; genetic drift; detection; mutation; ss.
XX
OS   Homo sapiens.
XX
PN   WO9833893-A2.
XX
PD   06-AUG-1998.
XX
PF   14-JAN-1998;   98WO-US00730.
XX
PR   04-DEC-1997;   97US-0985162.
PR   31-JAN-1997;   97US-0036476.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (UYAS-) UNIV ASTON.
XX
PI   Akhtar S,  Fell P,  McSwiggen JA;
XX
DR   WPI; 1998-437449/37.
XX
PT   Enzymatic nucleic acids - which cleave RNA derived from an epidermal
PT   growth factor receptor, useful for inhibiting cell proliferation and
PT   for treating cancers
XX
PS   Claim 5; Page 78; 109pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules (NAMs)
CC   which specifically cleave RNA derived from an epidermal growth factor
CC   receptor (EGF-R) gene. AAV97221 to AAV98043 and AAV98979 to AAV99090
CC   represent specifically claimed target sequence from human EGF-R. AAV98044
CC   to AAV98866 and AAV98867 to V9878 represent hammerhead ribozymes and
CC   hairpin ribozymes respectively for human EGF-R. The NAMs are useful for
CC   cleaving EGF-R RNA in the treatment of a condition associated with EGFR
CC   expression levels e.g. to inhibit cell proliferation in the prevention or
CC   treatment of cancers. The NAMs can also be used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of EGF-R RNA in a cell.
XX
SQ   Sequence 17 BP; 2 A; 3 C; 4 G; 8 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   38.5%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    8;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        550 AGTTTTTCATTGT 562
              ||:::::||::|:
Db          2 AGUUUUUCAUUGU 14


RESULT 455
AAA22686
ID   AAA22686 standard; RNA; 17 BP.
XX
AC   AAA22686;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5912.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 236; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 13 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   23.1%;  Pred. No. 3.9e+02;
  Matches    3;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1144 TTATTTTATTTTA 1156
              ::|::::|::::|
Db          5 UUAUUUUAUUUUA 17


RESULT 456
AAA22687
ID   AAA22687 standard; RNA; 17 BP.
XX
AC   AAA22687;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5913.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
```

```
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 236; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 13 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   23.1%;  Pred. No. 3.9e+02;
  Matches    3;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1144 TTATTTTATTTTA 1156
              ::|::::|::::|
Db          4 UUAUUUUAUUUUA 16


RESULT 457
AAA22688
ID   AAA22688 standard; RNA; 17 BP.
XX
AC   AAA22688;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5914.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 236; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 13 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   23.1%;  Pred. No. 3.9e+02;
  Matches    3;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1144 TTATTTTATTTTA 1156
              ::|::::|::::|
Db          3 UUAUUUUAUUUUA 15


RESULT 458
AAA22689
ID   AAA22689 standard; RNA; 17 BP.
```

XX
AC AAA22689;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin subunit beta 3 substrate sequence SEQ ID NO:5915.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 54; Page 236; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 4 A; 0 C; 1 G; 12 U; 0 other;

```
  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   23.1%;  Pred. No. 3.9e+02;
  Matches    3;  Conservative   10;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1144 TTATTTTATTTTA 1156
              ::|::::|::::|
Db          2 UUAUUUUAUUUUA 14
```

RESULT 459
AAA22806/c
ID AAA22806 standard; RNA; 17 BP.
XX
AC AAA22806;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin subunit beta 3 substrate sequence SEQ ID NO:6032.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 54; Page 243; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 0 A; 0 C; 3 G; 14 U; 0 other;

```
  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
```

```
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1208 AACAAACAAACAA 1220
              |||||||||||||
Db         17 AACAAACAAACAA 5


RESULT 460
AAA22811/c
ID   AAA22811 standard; RNA; 17 BP.
XX
AC   AAA22811;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6037.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors -
XX
PS   Claim 54; Page 244; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 1 A; 0 C; 5 G; 11 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1207 AAACAAACAAACA 1219
              |||||||||||||
Db         13 AAACAAACAAACA 1


RESULT 461
AAV93569
ID   AAV93569 standard; RNA; 17 BP.
XX
AC   AAV93569;
XX
DT   18-FEB-1999  (first entry)
XX
DE   Human B-raf substrate nucleotide position 1724.
XX
KW   Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW   target; substrate; catalyst; modulation; expression; Raf gene;
KW   delivery; screening; identification; synthesis; deprotection;
KW   purification; cancer; inflammation; psoriasis; non-hepatic ascites;
KW   infection; genetic drift; restenosis; rheumatoid arthritis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9850530-A2.
XX
PD   12-NOV-1998.
XX
PF   05-MAY-1998;   98WO-US09249.
XX
PR   19-DEC-1997;   97US-0068212.
PR   09-MAY-1997;   97US-0046059.
PR   09-JUN-1997;   97US-0049002.
PR   03-JUL-1997;   97US-0051718.
PR   22-AUG-1997;   97US-0056808.
PR   02-OCT-1997;   97US-0061321.
PR   02-OCT-1997;   97US-0061324.
PR   05-NOV-1997;   97US-0064866.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Beaudry A,  Beigelman L,  Bellon L,  Burgin A,  Jarvis T;
PI   Karpeisky A,  Kisich K,  Matulic-Adamic J,  McSwiggen JA;
PI   Parry T,  Reynolds M,  Sweedler D,  Thompson J,  Workman CT;
XX
DR   WPI; 1999-009494/01.
XX
PT   Identifying new catalytic nucleic acid that modulates selected
PT   processes - especially ribozymes that cleave Raf RNA for treating
PT   cancer, restenosis, and also new ribozymes and modified nucleoside
PT   triphosphates used as antiviral agents and synthons
XX
PS   Claim 177; Page 170; 259pp; English.
XX
CC   A method has been developed for the identification of a nucleic acid
CC   capable of modulating a process in a biological system. The method
CC   comprises: (a) introducing into the system a random library of nucleic
CC   acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC   a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC   in systems where modulation has occurred and/or determining the sequence
CC   of at least part of the SBDs in such systems. Nucleic acid molecules
CC   with endonuclease activity and catalytic activity, from the present
CC   invention, are used to modulate gene expression in plant and mammalian
CC   cells and to cleave target nucleic acid, particularly for treating
CC   systemic diseases caused by specific RNA, e.g. cancer, inflammation,
CC   psoriasis, non-hepatic ascites and infection. They may also be used to
CC   detect genetic drift and mutations in diseased cells and to determine
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CC   c-raf RNA. Specifically NACs with RNA-cleaving activity that modulate
CC   expression of the Raf gene, are used to treat cancer, restenosis,
CC   psoriasis or rheumatoid arthritis, or generally any condition associated
CC   with the level of c-raf. Introduction of sugar/phosphate modifications
CC   increases stability against nuclease and activity. AAV90922 to AAV93877
CC   represent NACs that can be used in the method, specifically for
CC   modulating the expression of a Raf gene.
XX
SQ   Sequence 17 BP; 6 A; 2 C; 3 G; 6 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   69.2%;  Pred. No. 3.9e+02;
  Matches    9;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        656 TAGATATTGCACG 668
              :|||:|::|||||
Db          4 UAGAUAUUGCACG 16


RESULT 462
AAV93570
ID   AAV93570 standard; RNA; 17 BP.
XX
AC   AAV93570;
XX
DT   18-FEB-1999  (first entry)
XX
DE   Human B-raf substrate nucleotide position 1726.
XX
KW   Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW   target; substrate; catalyst; modulation; expression; Raf gene;
KW   delivery; screening; identification; synthesis; deprotection;
KW   purification; cancer; inflammation; psoriasis; non-hepatic ascites;
KW   infection; genetic drift; restenosis; rheumatoid arthritis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9850530-A2.
XX
PD   12-NOV-1998.
XX
PF   05-MAY-1998;   98WO-US09249.
XX
PR   19-DEC-1997;   97US-0068212.
PR   09-MAY-1997;   97US-0046059.
PR   09-JUN-1997;   97US-0049002.
PR   03-JUL-1997;   97US-0051718.
PR   22-AUG-1997;   97US-0056808.
PR   02-OCT-1997;   97US-0061321.
PR   02-OCT-1997;   97US-0061324.
PR   05-NOV-1997;   97US-0064866.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Beaudry A,  Beigelman L,  Bellon L,  Burgin A,  Jarvis T;
PI   Karpeisky A,  Kisich K,  Matulic-Adamic J,  McSwiggen JA;
PI   Parry T,  Reynolds M,  Sweedler D,  Thompson J,  Workman CT;
XX
DR   WPI; 1999-009494/01.
XX
PT   Identifying new catalytic nucleic acid that modulates selected
PT   processes - especially ribozymes that cleave Raf RNA for treating
PT   cancer, restenosis, and also new ribozymes and modified nucleoside
PT   triphosphates used as antiviral agents and synthons
XX
PS   Claim 177; Page 170; 259pp; English.
XX
CC   A method has been developed for the identification of a nucleic acid
CC   capable of modulating a process in a biological system. The method
CC   comprises: (a) introducing into the system a random library of nucleic
CC   acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC   a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC   in systems where modulation has occurred and/or determining the sequence
CC   of at least part of the SBDs in such systems. Nucleic acid molecules
CC   with endonuclease activity and catalytic activity, from the present
CC   invention, are used to modulate gene expression in plant and mammalian
CC   cells and to cleave target nucleic acid, particularly for treating
CC   systemic diseases caused by specific RNA, e.g. cancer, inflammation,
CC   psoriasis, non-hepatic ascites and infection. They may also be used to
CC   detect genetic drift and mutations in diseased cells and to determine
CC   c-raf RNA. Specifically NACs with RNA-cleaving activity that modulate
CC   expression of the Raf gene, are used to treat cancer, restenosis,
CC   psoriasis or rheumatoid arthritis, or generally any condition associated
CC   with the level of c-raf. Introduction of sugar/phosphate modifications
CC   increases stability against nuclease and activity. AAV90922 to AAV93877
CC   represent NACs that can be used in the method, specifically for
CC   modulating the expression of a Raf gene.
XX
SQ   Sequence 17 BP; 7 A; 3 C; 3 G; 4 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   69.2%;  Pred. No. 3.9e+02;
  Matches    9;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        656 TAGATATTGCACG 668
              :|||:|::|||||
Db          2 UAGAUAUUGCACG 14


RESULT 463
AAF03149/c
ID   AAF03149 standard; DNA; 17 BP.
XX
AC   AAF03149;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1444.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 88; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 4 A; 5 C; 0 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
```

```
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1587 TGGAAATATAAAA 1599
              |||||||||||||
Db         17 TGGAAATATAAAA 5


RESULT 464
AAF03150/c
ID   AAF03150 standard; DNA; 17 BP.
XX
AC   AAF03150;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1445.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 88; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 5 A; 3 C; 0 G; 9 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1587 TGGAAATATAAAA 1599
              |||||||||||||
Db         15 TGGAAATATAAAA 3


RESULT 465
AAF03151/c
ID   AAF03151 standard; DNA; 17 BP.
XX
AC   AAF03151;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1446.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 88; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 4 A; 2 C; 1 G; 10 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1587 TGGAAATATAAAA 1599
              |||||||||||||
Db         13 TGGAAATATAAAA 1


RESULT 466
ABA78928/c
ID   ABA78928 standard; DNA; 17 BP.
XX
AC   ABA78928;
XX
DT   24-JAN-2002  (first entry)
XX
DE   Factor V mutation correcting oligonucleotide SEQ ID NO: 1774.
XX
KW   Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW   retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW   cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW   adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW   haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW   mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW   familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW   UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW   Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW   antilipemic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200173002-A2.
XX
PD   04-OCT-2001.
XX
PF   27-MAR-2001; 2001WO-US09761.
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XX
PR   27-MAR-2000; 2000US-192176P.
PR   27-MAR-2000; 2000US-192179P.
PR   01-JUN-2000; 2000US-208538P.
PR   30-OCT-2000; 2000US-244989P.
XX
PA   (UYDE ) UNIV DELAWARE.
XX
PI   Kmiec EB,  Gamper HB,  Rice MC;
XX
DR   WPI; 2001-639230/73.
XX
PT   Oligonucleotide for targeted alterations of genetic sequences and for
PT   treating cystic fibrosis, comprises at least one mismatch and chemical
PT   modification -
XX
PS   Claim 7; Page 149; 294pp; English.
XX
CC   The present invention provides single-stranded oligonucleotides which can
CC   be used for the targeted alteration of genomic sequences, where the
CC   oligonucleotide has at least one mismatch compared with the genomic
CC   sequence to be altered. In particular, these sequences are directed at
CC   the following genes: adenosine deaminase, p53, beta-globin,
CC   retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC   (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC   1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC   apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC   (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC   presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC   such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC   haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC   Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC   various syndromes. The present sequence is one of the gene correcting
CC   oligonucleotides of the invention.
XX
SQ   Sequence 17 BP; 8 A; 3 C; 3 G; 3 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        510 AAGATTCCTGGTT 522
              |||||||||||||
Db         17 AAGATTCCTGGTT 5


RESULT 467
ABA78929
ID   ABA78929 standard; DNA; 17 BP.
XX
AC   ABA78929;
XX
DT   24-JAN-2002  (first entry)
XX
DE   Factor V mutation correcting oligonucleotide SEQ ID NO: 1775.
XX
KW   Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW   retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW   cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW   adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW   haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW   mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW   familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW   UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW   Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW   antilipemic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200173002-A2.
XX
PD   04-OCT-2001.
XX
PF   27-MAR-2001; 2001WO-US09761.
XX
PR   27-MAR-2000; 2000US-192176P.
PR   27-MAR-2000; 2000US-192179P.
PR   01-JUN-2000; 2000US-208538P.
PR   30-OCT-2000; 2000US-244989P.
XX
PA   (UYDE ) UNIV DELAWARE.
XX
PI   Kmiec EB,  Gamper HB,  Rice MC;
XX
DR   WPI; 2001-639230/73.
XX
PT   Oligonucleotide for targeted alterations of genetic sequences and for
PT   treating cystic fibrosis, comprises at least one mismatch and chemical
PT   modification -
XX
PS   Claim 7; Page 149; 294pp; English.
XX
CC   The present invention provides single-stranded oligonucleotides which can
CC   be used for the targeted alteration of genomic sequences, where the
CC   oligonucleotide has at least one mismatch compared with the genomic
CC   sequence to be altered. In particular, these sequences are directed at
CC   the following genes: adenosine deaminase, p53, beta-globin,
CC   retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC   (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC   1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC   apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC   (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC   presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC   such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC   haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC   Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC   various syndromes. The present sequence is one of the gene correcting
CC   oligonucleotides of the invention.
XX
SQ   Sequence 17 BP; 3 A; 3 C; 3 G; 8 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        510 AAGATTCCTGGTT 522
              |||||||||||||
Db          1 AAGATTCCTGGTT 13


RESULT 468
ABA78932/c
ID   ABA78932 standard; DNA; 17 BP.
XX
AC   ABA78932;
XX
DT   24-JAN-2002  (first entry)
XX
DE   Factor V mutation correcting oligonucleotide SEQ ID NO: 1778.
XX
KW   Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW   retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW   cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW   adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW   haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW   mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW   familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW   UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW   Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW   antilipemic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200173002-A2.
XX
PD   04-OCT-2001.
```

XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 149; 294pp; English.
XX
CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the
CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 8 A; 3 C; 3 G; 3 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 510 AAGATTCCTGGTT 522
|||||||||||||
Db 16 AAGATTCCTGGTT 4

RESULT 469
ABA78933
ID ABA78933 standard; DNA; 17 BP.
XX
AC ABA78933;
XX
DT 24-JAN-2002 (first entry)
XX
DE Factor V mutation correcting oligonucleotide SEQ ID NO: 1779.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX
PN WO200173002-A2.
XX
PD 04-OCT-2001.
XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 149; 294pp; English.
XX
CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the
CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 3 A; 3 C; 3 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 510 AAGATTCCTGGTT 522
|||||||||||||
Db 2 AAGATTCCTGGTT 14

RESULT 470
ABK56156/c
ID ABK56156 standard; RNA; 17 BP.
XX
AC ABK56156;
XX
DT 02-JUL-2002 (first entry)
XX
DE Human CLCA1 gene enzymatic nucleic acid #527.
XX
KW Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW acetylcysteine.
XX
OS Homo sapiens.
XX
PN WO200211674-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US24970.
XX

PR 09-AUG-2000; 2000US-224383P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (SYNT) SYNTEX USA LLC.
PA (THOM/) THOMPSON J.
XX
PI Thompson J, McSwiggen J, McKenzie T, Ayers D, Szymkowski DE;
PI Grupe A;
XX
DR WPI; 2002-217145/27.
XX
PT Enzymatic polynucleotide that down regulates expression of chloride
PT channel calcium activated gene, useful for treating Chronic obstructive
PT pulmonary disease (COPD), chronic bronchitis and asthma -
XX
PS Claim 4; Page 62; 152pp; English.
XX
CC The invention relates to enzymatic nucleic acid molecules that down
CC regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC by cleaving RNA derived from the genes. The nucleic acid sequences are
CC useful as pharmaceutical agents for treating conditions such as chronic
CC obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC that are related to or will respond to the levels of CLCA1 in a cell or
CC tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC hence, are useful for treatment of a patient having a condition
CC associated with the level of CLCA1, where the invention further comprises
CC the use of one or more therapies under conditions suitable for the
CC treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC nucleic acids of the invention are also used as diagnostic tools to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of CLCA1 RNA in a cell. This sequence represents an
CC enzymatic nucleic acid molecule of the invention.
XX
SQ Sequence 17 BP; 12 A; 0 C; 1 G; 4 U; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1142 ATTTATTTTATTT 1154
||||||||||||||
Db 17 ATTTATTTTATTT 5

RESULT 471
ABK57482/c
ID ABK57482 standard; RNA; 17 BP.
XX
AC ABK57482;
XX
DT 02-JUL-2002 (first entry)
XX
DE Human CLCA1 gene enzymatic nucleic acid #1853.
XX
KW Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW acetylcysteine.
XX
OS Homo sapiens.
XX
PN WO200211674-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US24970.
XX
PR 09-AUG-2000; 2000US-224383P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (SYNT) SYNTEX USA LLC.
PA (THOM/) THOMPSON J.
XX
PI Thompson J, McSwiggen J, McKenzie T, Ayers D, Szymkowski DE;
PI Grupe A;
XX
DR WPI; 2002-217145/27.
XX
PT Enzymatic polynucleotide that down regulates expression of chloride
PT channel calcium activated gene, useful for treating Chronic obstructive
PT pulmonary disease (COPD), chronic bronchitis and asthma -
XX
PS Claim 4; Page 114; 152pp; English.
XX
CC The invention relates to enzymatic nucleic acid molecules that down
CC regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC by cleaving RNA derived from the genes. The nucleic acid sequences are
CC useful as pharmaceutical agents for treating conditions such as chronic
CC obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC that are related to or will respond to the levels of CLCA1 in a cell or
CC tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC hence, are useful for treatment of a patient having a condition
CC associated with the level of CLCA1, where the invention further comprises
CC the use of one or more therapies under conditions suitable for the
CC treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC nucleic acids of the invention are also used as diagnostic tools to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of CLCA1 RNA in a cell. This sequence represents an
CC enzymatic nucleic acid molecule of the invention.
XX
SQ Sequence 17 BP; 11 A; 1 C; 0 G; 5 U; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 3.9e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1142 ATTTATTTTATTT 1154
||||||||||||||
Db 14 ATTTATTTTATTT 2

RESULT 472
ABN07606
ID ABN07606 standard; DNA; 17 BP.
XX
AC ABN07606;
XX
DT 29-MAY-2002 (first entry)
XX
DE Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7598.
XX
KW Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW skeletal muscle disorder; amplicon; screening; ss.
XX
OS Homo sapiens.
XX
PN WO200192524-A2.
XX
PD 06-DEC-2001.
XX
PF 25-MAY-2001; 2001WO-US16981.
XX
PR 26-MAY-2000; 2000US-207456P.
PR 21-SEP-2000; 2000US-234687P.
PR 27-SEP-2000; 2000US-236359P.
PR 04-OCT-2000; 2000GB-0024263.
PR 30-JAN-2001; 2001WO-US00661.
PR 30-JAN-2001; 2001WO-US00662.
PR 30-JAN-2001; 2001WO-US00663.
PR 30-JAN-2001; 2001WO-US00664.

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PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00666.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   30-JAN-2001; 2001WO-US00670.
PR   05-FEB-2001; 2001US-266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1
PT   proteins, or as specific biomolecule capture probes for
PT   surface-enhanced laser desorption ionization, comprises human
PT   myosin-like protein hGDMLP-1 -
XX
PS   Disclosure; SEQ ID 7598; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of
CC   hGDMLP-1 can be used in gene therapy and vaccine production. The
CC   hGDMLP-1 nucleic acids can be used as probes to detect, characterise
CC   and quantify hGDMLP-1 nucleic acids in samples, as amplification
CC   substrates, to provide initial substrates for the recombinant engineering
CC   of hGDMLP-1 protein variants having desired phenotypic improvements, and
CC   for expressing the proteins. The hGDMLP-1 proteins or polypeptides may
CC   be used as immunogens to raise antibodies that specifically recognise
CC   hGDMLP-1 proteins, as standards in assays used to determine the
CC   concentration and/or amount specifically of hGDMLP proteins, as specific
CC   biomolecule capture probes for surface-enhanced laser desorption
CC   ionisation, as therapeutic supplement in patients having specific
CC   deficiency in hGDMLP-1 production, and in vaccines or for replacement
CC   therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for
CC   diagnosing a disorder associated with the expression of hGDMLP-1, in
CC   particular heart and skeletal muscle disorders. hGDMLP-1 is localised to
CC   chromosome 22. The present sequence represents an oligomer used in the
CC   screening of the hGDMLP-1 sequence in the exemplification of the present
CC   invention.
CC   N.B. The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence.
XX
SQ   Sequence 17 BP; 5 A; 6 C; 2 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        939 GCCACCATCTTAC 951
              |||||||||||||
Db          5 GCCACCATCTTAC 17


RESULT 473
ABN07612
ID   ABN07612 standard; DNA; 17 BP.
XX
AC   ABN07612;
XX
DT   29-MAY-2002  (first entry)
XX
DE   Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7604.
XX
KW   Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
KW   muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;
KW   skeletal muscle disorder; amplicon; screening; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192524-A2.
XX
PD   06-DEC-2001.
XX
PF   25-MAY-2001; 2001WO-US16981.
XX
PR   26-MAY-2000; 2000US-207456P.
PR   21-SEP-2000; 2000US-234687P.
PR   27-SEP-2000; 2000US-236359P.
PR   04-OCT-2000; 2000GB-0024263.
PR   30-JAN-2001; 2001WO-US00661.
PR   30-JAN-2001; 2001WO-US00662.
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00666.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   30-JAN-2001; 2001WO-US00670.
PR   05-FEB-2001; 2001US-266860P.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Gu Y,  Ji Y,  Penn SG,  Hanzel DK,  Rank DR,  Chen W,  Shannon ME;
XX
DR   WPI; 2002-179446/23.
XX
PT   New polypeptide, for raising antibodies that recognize hGDMLP-1
PT   proteins, or as specific biomolecule capture probes for
PT   surface-enhanced laser desorption ionization, comprises human
PT   myosin-like protein hGDMLP-1 -
XX
PS   Disclosure; SEQ ID 7604; 214pp; English.
XX
CC   The present invention describes a human genome-derived myosin-like
CC   protein 1 (hGDMLP-1). The protein and polynucleotide sequences of
CC   hGDMLP-1 can be used in gene therapy and vaccine production. The
CC   hGDMLP-1 nucleic acids can be used as probes to detect, characterise
CC   and quantify hGDMLP-1 nucleic acids in samples, as amplification
CC   substrates, to provide initial substrates for the recombinant engineering
CC   of hGDMLP-1 protein variants having desired phenotypic improvements, and
CC   for expressing the proteins. The hGDMLP-1 proteins or polypeptides may
CC   be used as immunogens to raise antibodies that specifically recognise
CC   hGDMLP-1 proteins, as standards in assays used to determine the
CC   concentration and/or amount specifically of hGDMLP proteins, as specific
CC   biomolecule capture probes for surface-enhanced laser desorption
CC   ionisation, as therapeutic supplement in patients having specific
CC   deficiency in hGDMLP-1 production, and in vaccines or for replacement
CC   therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for
CC   diagnosing a disorder associated with the expression of hGDMLP-1, in
CC   particular heart and skeletal muscle disorders. hGDMLP-1 is localised to
CC   chromosome 22. The present sequence represents an oligomer used in the
CC   screening of the hGDMLP-1 sequence in the exemplification of the present
CC   invention.
CC   N.B. The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequence.
XX
SQ   Sequence 17 BP; 4 A; 6 C; 2 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        941 CACCATCTTACCT 953
              |||||||||||||
Db          1 CACCATCTTACCT 13


RESULT 474
ABK17633/c
ID   ABK17633 standard; RNA; 17 BP.
XX
```

```
AC   ABK17633;
XX
DT   09-APR-2002  (first entry)
XX
DE   Human ERG hammerhead ribozyme target sequence, Seq ID No 280.
XX
KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW   amberzyme.
XX
OS   Homo sapiens.
XX
PN   WO200188124-A2.
XX
PD   22-NOV-2001.
XX
PF   16-MAY-2001; 2001WO-US15866.
XX
PR   16-MAY-2000; 2000US-0572021.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
XX
DR   WPI; 2002-082995/11.
XX
PT   Novel polynucleotide which down regulates expression of Ets-related
PT   gene, useful for treating cancer, diabetic retinopathy, macular
PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
PT   syndrome  -
XX
PS   Claim 4; Page 63; 149pp; English.
XX
CC   The invention relates to a nucleic acid molecule (I) which down regulates
CC   expression of an Ets-related gene (ERG). (I) is useful for treating
CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC   treating a patient having a condition associated with the level of ERG,
CC   by contacting cells of the patient with (I) under conditions suitable for
CC   the treatment. The method comprises the use of one or more therapies
CC   under conditions suitable for the treatment. Leukaemia or tumour
CC   angiogenesis is treated by administering (I) to the patient in
CC   conjunction with one or more of other therapies such as radiation or
CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC   diseases related to the expression of ERG, and as diagnostic tool to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of ERG RNA in a cell. (I) is useful for specifically
CC   targeting genes that share homology with ERG gene or ERG fusion genes.
CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
CC   related PCR primers of the invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 2 G; 7 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1504 ATTTTTAAATACA 1516
                ||||||||||||
Db         14 ATTTTTAAATACA 2


RESULT 475
ABT34689
ID   ABT34689 standard; DNA; 17 BP.
XX
AC   ABT34689;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Tumour suppression related human fukutin oligo SEQ ID No 326.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; protein chip; gene therapy; tumour suppression;
KW   human fukutin; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003025175-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB04208.
XX
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-313353/30.
XX
PT   New isolated nucleic acid, useful for treating viral diseases
PT   associated with tumors and cell degeneration, also related
PT   polypeptides, antibodies and transfected cells  -
XX
PS   Disclosure; Page 72; 720pp; French.
XX
CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC   given in the specification, a sequence containing at least 15
CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC   sequence that hybridizes to them under highly stringent conditions, or
CC   the complement of any of them, or the corresponding RNA. The novel
CC   isolated nucleic acids of the invention are useful as probes and primers
CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC   and for production of recombinant polypeptides. Any of the nucleic acids,
CC   polypeptides, vectors containing the nucleic acids, cells containing the
CC   vector or antibodies directed against the polypeptides are useful for
CC   preparation of pharmaceuticals for prevention and/or treatment of viral
CC   diseases that are characterised by development of tumours or cell
CC   degeneration, specifically cancer but also Alzheimer's disease and
CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC   patient samples is useful for diagnosis and/or prognosis of these
CC   diseases. The polypeptides can also be used to generate antibodies, and
CC   both the polypeptide and antibodies are useful as components of protein
CC   chips. The nucleic acid sequences of the invention can be used in gene
CC   therapy. This polynucleotide sequence represents a tumour suppression
CC   related human fukutin oligonucleotide of the invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 5 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        419 ATCAGTGAAGATG 431
                ||||||||||||
Db          2 ATCAGTGAAGATG 14
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RESULT 476
AAX79107/c
ID   AAX79107 standard; DNA; 18 BP.
XX
AC   AAX79107;
XX
DT   17-AUG-1999  (first entry)
XX
DE   Primer NGA63-F for A.thaliana SSLP marker.
XX
KW   MSH6; MutS homologue; plant; DNA mismatch repair; genetic variation;
KW   characteristic; microsatellite; primer; PCR; amplification; SSLP; ss;
KW   simple sequence length polymorphism.
XX
OS   Synthetic.
OS   Arabidopsis thaliana.
XX
PN   WO9919492-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998;   98WO-EP06977.
XX
PR   10-OCT-1997;   97AU-0009745.
XX
PA   (RHON ) RHONE-POULENC AGROCHIMIE.
XX
PI   Betzner AS,  Doutriaux M,  Freyssinet G,  Perez P;
XX
DR   WPI; 1999-277644/23.
XX
PT   DNA encoding protein functionally involved in the DNA mismatch
PT   repair system of a plant
XX
PS   Example 3; Page 26; 117pp; English.
XX
CC   The invention relates to the isolation of the Arabidopsis thaliana MSH3
CC   (AAX79066) and MSH6 (AAX79067) genes.  These genes are MutS homologues
CC   (MSH) from plants and are involved in DNA mismatch repair.  The DNA
CC   sequence can be used in processes for at least partially inactivating a
CC   DNA mismatch repair system of a plant, for increasing genetic variation
CC   in a plant, and for obtaining a plant with a desired characteristic.
CC   Primers AAX79105-X79160 represent 28 primer pairs used to amplify short
CC   allelic repeat fragments designated Simple Sequence Length Polymorphisms
CC   (SSLP).  These fragments can be used as markers in the analysis of
CC   homologous recombination between genomes of A.thaliana subspecies.
XX
SQ   Sequence 18 BP; 8 A; 5 C; 5 G; 0 U; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        895 CTGTGCCTTGGTT 907
              |||||||||||||
Db         13 CTGTGCCTTGGTT 1


RESULT 477
AAZ95455/c
ID   AAZ95455 standard; cDNA; 18 BP.
XX
AC   AAZ95455;
XX
DT   01-JUN-2000  (first entry)
XX
DE   TEIL random binding site selection oligonucleotide #73.
XX
KW   Tobacco; ethylene insensitive 3; TEIL; transcription factor; plant;
KW   regulation; ethylene inducible gene; environmental stress; resistance;
KW   ss.
XX
OS   Nicotiana tabacum.
XX
PN   WO200009712-A1.
XX
PD   24-FEB-2000.
XX
PF   06-MAY-1999;   99WO-JP02347.
XX
PR   11-AUG-1998;   98JP-0227448.
XX
PA   (NORQ ) NAT INST AGROBIOLOGICAL RESOURCES MIN.
PA   (NISC-) JAPAN SCI & TECHNOLOGY CORP.
XX
PI   Ohashi Y,  Kosugi S;
XX
DR   WPI; 2000-206011/18.
XX
PT   Transcription factor regulating the expression of ethylene-inducible
PT   genes and gene encoding it, useful for imparting resistance to
PT   environmental stress to plants  -
XX
PS   Example 3; Fig 5; 65pp; Japanese.
XX
CC   The present invention describes a transcription factor regulating the
CC   expression of ethylene-inducible genes in plants, having DNA binding
CC   activity specific to the consensus sequence A(T/C)G(A/T)A(C/T)CT. The
CC   present invention describes the tobacco ethylene insensitive 3 (EIN3)-
CC   like protein, designated TEIL, isolated from Nicotiana tabacum cv
CC   Samsun NN. The transcription factor is used to impart environmental
CC   stress resistance to plants by transformation with the gene for the
CC   transcription factor; and screening potential inhibitors of the
CC   expression of ethylene-inducible genes in plants. AAZ95383 to AAZ95476
CC   represent oligonucleotides used in the exemplification of the present
CC   invention.
XX
SQ   Sequence 18 BP; 6 A; 4 C; 4 G; 4 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        555 TTCATTGTACCAT 567
              |||||||||||||
Db         13 TTCATTGTACCAT 1


RESULT 478
AAH22863
ID   AAH22863 standard; DNA; 18 BP.
XX
AC   AAH22863;
XX
DT   07-SEP-2001  (first entry)
XX
DE   EGF-R mRNA specific oligomer EGF-23a.s.
XX
KW   Messenger ribonucleic acid; mRNA binding motif; immunogen; cell growth;
KW   Grb7; epidermal growth factor receptor; EGF-R; REMSA; ss.
XX
OS   Homo sapiens.
XX
PN   WO200148193-A1.
XX
PD   05-JUL-2001.
XX
PF   22-DEC-2000; 2000WO-AU01595.
XX
PR   23-DEC-1999;   99AU-0004835.
XX
PA   (UYWA-) UNIV WESTERN AUSTRALIA.
XX
PI   Leedman PJ,  Balmer L,  Thomson A;
```

XX
DR WPI; 2001-418275/44.
XX
PT Novel mRNA binding motif that is capable of binding and destabilizing
PT the mRNA, useful as an immunogen to generate anti-mRNA binding motif
PT antibodies which are useful for diagnostic purposes -
XX
PS Example 1; Fig 3; 87pp; English.
XX
CC The invention provides an messenger ribonucleic acid (mRNA) binding motif
CC that is capable of binding and destabilising the mRNA. The mRNA binding
CC motif is useful as an immunogen to generate antibodies, which are useful
CC as standards in assays for the motif ligand, for detecting the motif
CC ligand in clinical samples for diagnostic purposes, and for in vivo
CC imaging. A polypeptide that is specifically co-precipitated by the
CC antibody is useful for effecting a number of interventions into cell
CC growth and proliferation. Sequences AAH22857-66 represent sense and
CC antisense DNA oligomers specific for epidermal growth factor receptor
CC (EGF-R), used in RNA electrophoretic gel mobility shift assay (REMSA).
XX
SQ Sequence 18 BP; 2 A; 3 C; 5 G; 8 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 550 AGTTTTTCATTGT 562
||||||||||||||
Db 3 AGTTTTTCATTGT 15

RESULT 479
AAH22864/c
ID AAH22864 standard; DNA; 18 BP.
XX
AC AAH22864;
XX
DT 07-SEP-2001 (first entry)
XX
DE EGF-R mRNA specific oligomer EGF-23a.as.
XX
KW Messenger ribonucleic acid; mRNA binding motif; immunogen; cell growth;
KW Grb7; epidermal growth factor receptor; EGF-R; REMSA; ss.
XX
OS Homo sapiens.
XX
PN WO200148193-A1.
XX
PD 05-JUL-2001.
XX
PF 22-DEC-2000; 2000WO-AU01595.
XX
PR 23-DEC-1999; 99AU-0004835.
XX
PA (UYWA-) UNIV WESTERN AUSTRALIA.
XX
PI Leedman PJ, Balmer L, Thomson A;
XX
DR WPI; 2001-418275/44.
XX
PT Novel mRNA binding motif that is capable of binding and destabilizing
PT the mRNA, useful as an immunogen to generate anti-mRNA binding motif
PT antibodies which are useful for diagnostic purposes -
XX
PS Example 1; Fig 3; 87pp; English.
XX
CC The invention provides an messenger ribonucleic acid (mRNA) binding motif
CC that is capable of binding and destabilising the mRNA. The mRNA binding
CC motif is useful as an immunogen to generate antibodies, which are useful
CC as standards in assays for the motif ligand, for detecting the motif
CC ligand in clinical samples for diagnostic purposes, and for in vivo
CC imaging. A polypeptide that is specifically co-precipitated by the
CC antibody is useful for effecting a number of interventions into cell
CC growth and proliferation. Sequences AAH22857-66 represent sense and
CC antisense DNA oligomers specific for epidermal growth factor receptor
CC (EGF-R), used in RNA electrophoretic gel mobility shift assay (REMSA).
XX
SQ Sequence 18 BP; 8 A; 5 C; 3 G; 2 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 550 AGTTTTTCATTGT 562
||||||||||||||
Db 16 AGTTTTTCATTGT 4

RESULT 480
AAF89440/c
ID AAF89440 standard; DNA; 18 BP.
XX
AC AAF89440;
XX
DT 14-AUG-2001 (first entry)
XX
DE Human genetic marker PCR primer SEQ ID NO: 29.
XX
KW Genetic marker; genetic disease diagnosis; cystic fibrosis; haemophilia;
KW sickle cell disease; muscular dystrophy; Huntington's disease;
KW retinoblastoma; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200134839-A1.
XX
PD 17-MAY-2001.
XX
PF 03-NOV-2000; 2000WO-US30493.
XX
PR 12-NOV-1999; 99US-0165301.
XX
PA (DUNL/) DUNLOP C L M.
PA (WEIS/) WEISEL J M.
XX
PI Dunlop CLM, Weisel JM;
XX
DR WPI; 2001-329096/34.
XX
PT Detecting multiple genetic markers in one assay, useful to
PT simultaneously detect a number of genetic disorders, comprises
PT generating extension products and separating them on the basis of
PT melting behavior is -
XX
PS Claim 44; Page 33; 40pp; English.
XX
CC The present invention describes a method of inentifying the presence of a
CC plurality of genetic markers in a subject, involving generating extension
CC products using PCR primers flanking the plurality of markers, separating
CC the extension products depending on their melting temperatures, and
CC analysing them to determine the presence or absence of each genetic
CC marker. This can be used in the diagnosis of genetic diseases, including
CC familial hypercholesterolaemia, cystic fibrosis, Tay-Sachs, thalassaemia,
CC sickle cell disease, phenylketonuria, galactosaemia, fragile X syndrome,
CC haemophilia A, myotonic dystrophy, medium chain acyl-CoA dehydrogenase,
CC maturity onset diabetes, cystinuria, methylmolonic acidaemia, urea cycle
CC disorders, hereditary fructose intolerance, hereditary haemochromatosis,
CC neonatal thrombocytopenia, Gaucher's disease, tyrosinaemia, Wilson's
CC disease, acaptonuria, hypolactasia, Baker's disease, argininaemia,
CC adenomatous polyposis coli, hereditary nonpolyposis colorectal cancer,
CC Huntington's disease, adult polycystic kidney disease,
CC alpha-1-antitrypsin deficiency, Duchenne muscular dystrophy, Marfan's
CC syndrome, neurofibromatosis, osteogenesis imperfecta, retinoblastoma,
CC Freidrich's ataxia, haemoglobinopathies, Leber's hereditary optic
CC neuropathy, MCAD, Canavan's disease, retinitis pigmentosa, Bloom
CC syndrome, Fanconi anaemia or Neimann Pick disease. The present sequence

```
CC   is one of the PCR primers of the invention.
XX
SQ   Sequence 18 BP; 5 A; 2 C; 6 G; 5 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        799 TGCCATAAAGTCA 811
              |||||||||||||
Db         14 TGCCATAAAGTCA 2


RESULT 481
AAF87476
ID   AAF87476 standard; DNA; 18 BP.
XX
AC   AAF87476;
XX
DT   09-JUL-2001  (first entry)
XX
DE   Corynebacterium thermoaminogenes icd primer.
XX
KW   Corynebacterium; thermophilic; amino acid biosynthesis; enzyme;
KW   thermotolerant; aceA; accBC; dtsR1; dtsR2; pfk; scrB; gluABCD;
KW   pdhA; pc; ppc; acn; icd; lpd; odhA; PCR primer; ss.
XX
OS   Corynebacterium thermoaminogenes.
XX
PN   WO200125447-A1.
XX
PD   12-APR-2001.
XX
PF   04-OCT-2000; 2000WO-JP06913.
XX
PR   04-OCT-1999;   99JP-0282716.
PR   01-NOV-1999;   99JP-0311147.
PR   21-APR-2000; 2000JP-0120687.
XX
PA   (AJIN ) AJINOMOTO CO INC.
XX
PI   Hirano S,  Nonaka G,  Matsuzaki Y,  Akiyoshi N,  Nakamura K,  Kimura E;
PI   Osumi T,  Matsui K,  Kawahara Y,  Kurahashi O,  Nakamatsu T;
PI   Sugimoto S;
XX
DR   WPI; 2001-300170/31.
XX
PT   Proteins and their DNA useful for microbial production of L-amino acids
PT   -
XX
PS   Example 1; Page 28; 215pp; Japanese.
XX
CC   The present sequence is provided in a specification relating to genes
CC   encoding thermophilic amino acid biosynthesis system enzymes of
CC   the thermotolerant bacterium Corynebacterium thermoaminogenes.
CC   The novel proteins retain at least 30% isocitrate ligase activity
CC   after heating at 50oC for 5 minutes. DNA fragments encoding the
CC   enzymes were isolated from a Corynebacterium thermoaminogenes
CC   chromosomal DNA plasmid library by PCR. The DNA may be used for
CC   developing strains of amino acid producing microorganisms.
XX
SQ   Sequence 18 BP; 2 A; 7 C; 2 G; 7 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        883 GTCCTTGTTCCAC 895
              |||||||||||||
Db          3 GTCCTTGTTCCAC 15


RESULT 482
AAF87482/c
ID   AAF87482 standard; DNA; 18 BP.
XX
AC   AAF87482;
XX
DT   09-JUL-2001  (first entry)
XX
DE   Corynebacterium thermoaminogenes icd primer.
XX
KW   Corynebacterium; thermophilic; amino acid biosynthesis; enzyme;
KW   thermotolerant; aceA; accBC; dtsR1; dtsR2; pfk; scrB; gluABCD;
KW   pdhA; pc; ppc; acn; icd; lpd; odhA; PCR primer; ss.
XX
OS   Corynebacterium thermoaminogenes.
XX
PN   WO200125447-A1.
XX
PD   12-APR-2001.
XX
PF   04-OCT-2000; 2000WO-JP06913.
XX
PR   04-OCT-1999;   99JP-0282716.
PR   01-NOV-1999;   99JP-0311147.
PR   21-APR-2000; 2000JP-0120687.
XX
PA   (AJIN ) AJINOMOTO CO INC.
XX
PI   Hirano S,  Nonaka G,  Matsuzaki Y,  Akiyoshi N,  Nakamura K,  Kimura E;
PI   Osumi T,  Matsui K,  Kawahara Y,  Kurahashi O,  Nakamatsu T;
PI   Sugimoto S;
XX
DR   WPI; 2001-300170/31.
XX
PT   Proteins and their DNA useful for microbial production of L-amino acids
PT   -
XX
PS   Example 1; Page 28; 215pp; Japanese.
XX
CC   The present sequence is provided in a specification relating to genes
CC   encoding thermophilic amino acid biosynthesis system enzymes of
CC   the thermotolerant bacterium Corynebacterium thermoaminogenes.
CC   The novel proteins retain at least 30% isocitrate ligase activity
CC   after heating at 50oC for 5 minutes. DNA fragments encoding the
CC   enzymes were isolated from a Corynebacterium thermoaminogenes
CC   chromosomal DNA plasmid library by PCR. The DNA may be used for
CC   developing strains of amino acid producing microorganisms.
XX
SQ   Sequence 18 BP; 7 A; 3 C; 6 G; 2 T; 0 other;

  Query Match             1.0%;  Score 13;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        883 GTCCTTGTTCCAC 895
              |||||||||||||
Db         15 GTCCTTGTTCCAC 3


RESULT 483
ABK85460/c
ID   ABK85460 standard; DNA; 18 BP.
XX
AC   ABK85460;
XX
DT   16-AUG-2002  (first entry)
XX
DE   Shrimp alkaline phosphatase (SAP) cDNA, PCR primer #1.
XX
KW   Shrimp; heat labile alkaline phosphatase; SAP; DNA sequencing reaction;
KW   cloning vector dephosphorylation; PCR amplification product-mixture;
KW   reporter enzyme; PCR; primer; ss.
XX
OS   Pandalus borealis.
```

OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 6
FT /*tag= a
FT /mod_base= i
XX
PN WO200231157-A2.
XX
PD 18-APR-2002.
XX
PF 10-OCT-2001; 2001WO-GB04509.
XX
PR 10-OCT-2000; 2000GB-0024827.
XX
PA (NOFI-) NORWEGIAN INST FISHERIES & AQUACULTURE.
PA (GARD/) GARDNER R.
XX
PI Gardner R, Nilsen I, Oeverboe K;
XX
DR WPI; 2002-444182/47.
XX
PT Novel recombinant heat labile shrimp alkaline phosphatase useful in
PT molecular biology techniques, in the production of DNA based
PT therapeutics or in forensic science, and for laboratory protocols -
XX
PS Example 3; Page 34; 54pp; English.
XX
CC The present invention relates to the isolation of shrimp (Pandalus
CC borealis) heat labile alkaline phosphatase (E.C. 3.1.3.1) referred
CC to as SAP, and polynucleotide sequences encoding it. The SAP enzyme
CC is useful in the dephosphorylation of cloning vectors prior to
CC ligation reactions, in the treatment of PCR amplification
CC product-mixtures prior to DNA sequencing reactions, in molecular
CC biology techniques, in the production of DNA based therapeutics or
CC in forensic science, for laboratory protocols, and as a reporter
CC enzyme. The SAP enzyme is heat labile and cold active making it
CC particularly suitable for use in multi-step laboratory protocols
CC where a simple heating step deactivates the enzyme. The present
CC sequence represents a SAP PCR primer used in the examples of the
CC present invention.
XX
SQ Sequence 18 BP; 7 A; 1 C; 4 G; 2 T; 4 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 72.2%; Pred. No. 4.1e+02;
Matches 13; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Qy 886 CTTGTTCCACTGTGCCTT 903
:||:||||| | |||||
Db 18 YTTRTTCCARTANGCCTT 1

RESULT 484
AAD31944/c
ID AAD31944 standard; DNA; 18 BP.
XX
AC AAD31944;
XX
DT 18-JUN-2002 (first entry)
XX
DE Salmonella typhimurium amyloid precursor protein (APP) DNA.
XX
KW Microbial virulence factor; genetic predisposition; Alzheimer's disease;
KW Parkinson's disease; schizophrenia; frontotemporal lobe dementia;
KW hereditary multi-infarct dementia; primary X-linked mental retardation;
KW dementia; myopathy; familial British dementia; psychiatric disorder;
KW transgenic animal; amyloid precursor protein; APP; ds.
XX
OS Salmonella typhimurium.
XX
PN WO200214546-A1.
XX
PD 21-FEB-2002.
XX
PF 15-FEB-2001; 2001WO-IB00189.
XX
PR 16-AUG-2000; 2000WO-IB01127.
XX
PA (FRIT/) FRITZSCHE M.
XX
PI Fritzsche M;
XX
DR WPI; 2002-241910/29.
XX
PT Use of DNA sequence having fragment of nucleic acid encoding putative
PT microbial virulence factor useful for identification of disease e.g.
PT Alzheimer's disease, caused by mutations or for genetic predisposition
PT -
XX
PS Example 1; Page 21; 52pp; English.
XX
CC The present invention relates to the use of a DNA sequence comprising a
CC fragment of a nucleic acid encoding a putative microbial virulence factor
CC for the identification of a disease caused by mutations or for a genetic
CC predisposition. The invention also relates to a method for identification
CC of a disease which comprises detecting the presence of a mutation within
CC a nucleic acid sequence of the fragment of virulence factor in a tissue-
CC or blood sample of a subject, where the tissue sample is a foetal graft
CC for neurotransplantation and where the sequence is inserted in the 3'
CC UTR (untranslated region) of the gene and mutation is found in the
CC polyadenylation signal of G1. The method is useful for identification
CC of a disease caused by mutation or for their genetic predisposition
CC where the disease is human disease which is from Alzheimer's disease,
CC Parkinson's disease, schizophrenia, myopathy, other forms of dementias
CC (frontotemporal lobe dementia, autosomal dominant Parkinson Lewy-Body
CC dementia, hereditary multi-infarct dementia, familial British dementia,
CC primary X-linked mental retardation) and where the human disease
CC constitutes a predisposition or a genetic variation, the pathological
CC manifestation of which is triggered by medicaments or drugs which is
CC preferably cannabis, where the manifestation comprises any forms of
CC dementia, schizophrenia or related psychiatric disorders. The invention
CC also relates to transgenic animals (e.g. comprising a non-functional
CC endogenous cannabinoid receptor (CB1) gene) which are useful for the
CC identifying or screening of compounds that have an effect on the
CC activity, expression or regulation of the translated protein (e.g.
CC CB1 protein). The present sequence is Salmonella typhimurium amyloid
CC precursor protein (APP) DNA. This sequence is used in the
CC exemplification of the invention.
XX
SQ Sequence 18 BP; 8 A; 2 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1050 ATGTATTTATTTA 1062
|||||||||||||
Db 15 ATGTATTTATTTA 3

RESULT 485
AAD50202/c
ID AAD50202 standard; DNA; 18 BP.
XX
AC AAD50202;
XX
DT 24-MAR-2003 (first entry)
XX
DE Human Fragile X gene exon 3 (FragX 3) specific PCR primer #2.
XX
KW Human; cystic fibrosis; Tay-sachs; familial hypercholesterolaemia; FH;
KW fragile X syndrome; haemophilia A; diabetes; cystinuria; tyrosinaemia;
KW urea cycle disorder; hereditary fructose intolerance; Baker's disease;
KW Wilson's disease; alcaptonuria; adult polycystic kidney disease; MCAD;
KW Huntington's disease; myotonic dystrophy; retinitis pigmentosa; cancer;

KW Gauchers disease; Canavan's disease; galactosaemia; thrombocytopaenia;
KW thalassaemia; sickle cell disease; phenylketonuria; Marfan's syndrome;
KW haemoglobinopathy; Bloom syndrome; Neimann Pick's disease; PCR; primer;
KW FragX 3; ss.
XX
OS Homo sapiens.
XX
PN WO200290374-A1.
XX
PD 14-NOV-2002.
XX
PF 06-MAY-2002; 2002WO-US14562.
XX
PR 08-MAY-2001; 2001US-0851501.
XX
PA (AMBR-) AMBRY GENETICS CORP.
XX
PI Dunlop CLM, Weisel JM;
XX
DR WPI; 2003-103498/09.
XX
PT Identifying the presence or absence of a mutation or polymorphism in a
PT subject, useful for diagnosing genetic diseases, comprises generating
PT extension products and analyzing the melting behavior of the mixed DNA
PT sample -
XX
PS Claim 56; Page 42; 49pp; English.
XX
CC The invention relates to a method for identifying the presence or absence
CC of a mutation or polymorphism in a plurality of genes. The method is used
CC for identifying the presence or absence of a mutation or polymorphism in
CC a subject, or the presence or absence of several genetic markers in a
CC subject for diagnosing genetic diseases, e.g. cystic fibrosis, Tay-sachs,
CC familial hypercholesterolaemia (FH), thalassaemia, sickle cell disease,
CC phenylketonuria, galactosaemia, fragile X syndrome, haemophilia A,
CC myotonic dystrophy, medium-chain acyl CoA dehydrogenase, maturity onset
CC diabetes, cystinuria, methylmolonic acidaemia, urea cycle disorders,
CC hereditary fructose intolerance, hereditary haemachromatosis, neonatal
CC thrombocytopaenia, Gauchers disease, tyrosinaemia, Wilson's disease,
CC alcaptonuria, hypolactasia, Baker's disease, argininaemia adenomatous
CC polyposis coli (APC), adult polycystic kidney disease, Duchenne muscular
CC dystrophy, alpha-1-antitrypsin deficiency, hereditary non-polyposis
CC colececal cancer, Huntington's disease, neurofibromatosis, Marfan's
CC syndrome, osteogenesis imperfecta, retinoblastoma, Freidrich's ataxia,
CC haemoglobinopathies, MCAD, Canavan's disease, Leber's hereditary optic
CC neuropathy, retinitis pigmentosa, Bloom syndrome, Fanconi's anaemia, or
CC Neimann Pick's disease. The present sequence is human Fragile X gene
CC exon 3 (FragX 3) specific PCR primer used to illustrate the method of
CC the invention.
XX
SQ Sequence 18 BP; 5 A; 2 C; 6 G; 5 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 799 TGCCATAAAGTCA 811
||||||||||||
Db 14 TGCCATAAAGTCA 2

RESULT 486
ABZ11062/c
ID ABZ11062 standard; DNA; 18 BP.
XX
AC ABZ11062;
XX
DT 16-JAN-2003 (first entry)
XX
DE Haematopoietic cell proliferation disorder related oligonucleotide #1202.
XX
KW Human; haematopoietic cell proliferation disorder; cytostatic;
KW gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW cytosine methylation state; probe; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200277272-A2.
XX
PD 03-OCT-2002.
XX
PF 26-MAR-2002; 2002WO-EP03401.
XX
PR 26-MAR-2001; 2001US-278333P.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Berlin K, Braun A, Distler J, Guetig D, Howe A, Mueller J;
PI Olek A, Piepenbrock C, Adorjan P, Grabs G, Lesche R, Leu E;
PI Lewin A, Lipscher E, Maier S, Model F, Mueller V, Otto T;
PI Pelet C, Schwope I, Ziebarth H;
XX
DR WPI; 2003-018942/01.
XX
PT Detecting and differentiating between hematopoietic cell proliferative
PT disorders, comprises contacting a target nucleic acid with a reagent
PT that distinguishes between methylated and non-methylated CpG
PT dinucleotides -
XX
PS Claim 15; Page 78; 117pp; English.
XX
CC The present invention describes a method for detecting and
CC differentiating between haematopoietic cell proliferative disorders
CC associated with at least 1 gene and/or their regulatory regions in a
CC subject. The method comprises contacting a target nucleic acid in a
CC biological sample obtained from the subject with at least 1 reagent,
CC which distinguishes between methylated and non-methylated CpG
CC dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC represent specifically claimed nucleotide sequences from the present
CC invention. Oligonucleotides from the present invention can be used: for
CC differentiating between healthy haematopoietic cells and proliferative
CC disorder haematopoietic cells; for differentiating between acute
CC lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC determining the cytosine methylation state and/or single nucleotide
CC polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC related sequences and their complements; and as primers for the
CC amplification of haematopoietic cell proliferation disorder related
CC DNA sequences. The nucleotide sequences from the present invention can
CC also be used for detecting a predisposition to, differentiation between
CC subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC haematopoietic cell proliferative disorders. The present method enables
CC a highly specific classification of haematopoietic cell proliferative
CC disorders allowing for improved and informed treatment of patients.
XX
SQ Sequence 18 BP; 4 A; 0 C; 3 G; 11 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1205 TTAAACAAACAAA 1217
||||||||||||
Db 15 TTAAACAAACAAA 3

RESULT 487
ABL46338
ID ABL46338 standard; DNA; 30 BP.
XX
AC ABL46338;
XX
DT 26-APR-2002 (first entry)
XX
DE Human interleukin-1 beta oligonucleotide SEQ ID NO:305.
XX

KW Nucleic acid accessible hybridisation site; detection; hybridisation;
KW characterisation; identification; nucleic acid structure; diagnosis;
KW PCR primer; probe; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200198537-A2.
XX
PD 27-DEC-2001.
XX
PF 15-JUN-2001; 2001WO-US19401.
XX
PR 17-JUN-2000; 2000US-212308P.
PR 15-JUN-2001; 2001US-0212308.
XX
PA (THIR-) THIRD WAVE TECHNOLOGIES INC.
XX
PI Lyamichev V, Allawi H, Dong F, Neri BP, Vener IT;
XX
DR WPI; 2002-049698/06.
XX
PT Identifying oligonucleotides hybridizing to nucleic acids containing
PT secondary structure, useful in clinical diagnosis, comprises
PT identifying primers that interact with the target to form an extension
PT product under amplification conditions -
XX
PS Claim 48; Fig 81A; 409pp; English.
XX
CC The present invention describes a method for identifying oligonucleotides
CC with desired hybridisation properties to nucleic acid targets containing
CC secondary structure. The method comprises amplifying a target nucleic
CC acid having at least one accessible and one inaccessible site. Primers
CC that form an extension product are identified as the oligonucleotides
CC which can interact with the folded target nucleic acid. Oligonucleotides
CC from the present invention can be used in novel detection methods for
CC clinical diagnostic purposes, including the detection and identification
CC of pathogenic organisms (e.g. HIV). The method allows the ability to
CC rapidly analyse nucleic acid structures. ABL46034 to ABL46367 represent
CC sequences used in the exemplification of the present invention.
XX
SQ Sequence 30 BP; 13 A; 4 C; 2 G; 11 T; 0 other;

Query Match 1.0%; Score 13; DB 1; Length 30;
Best Local Similarity 76.2%; Pred. No. 5.6e+02;
Matches 16; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

Qy 1444 CTGGTTGAAACTTGTTTATTA 1464
||| |||||| || | || ||
Db 1 CTGATTGAAATTTATCTAATA 21

RESULT 488
AAZ24085/c
ID AAZ24085 standard; DNA; 16 BP.
XX
AC AAZ24085;
XX
DT 04-FEB-2000 (first entry)
XX
DE N. gonorrhoeae GC3 DNA fragment PCR primer 20.
XX
KW GC3; species-specific detection; amplification; diagnosis; primer; ss.
XX
OS Synthetic.
OS Neisseria gonorrheae.
XX
PN DE19918479-A1.
XX
PD 28-OCT-1999.
XX
PF 23-APR-1999; 99DE-1018479.
XX
PR 27-APR-1998; 98US-0067773.
XX
PA (BECT) BECTON DICKINSON & CO.
XX
PI You Q;
XX
DR WPI; 1999-602549/52.
XX
PT Isolated nucleic acid for the GC-3 fragment from Neisseria gonorrhoeae,
PT useful for species-specific detection -
XX
PS Claim 3; Page 28; 37pp; German.
XX
CC This invention describes a novel isolated nucleic acid (A) for the
CC Neisseria gonorrhoeae GC-3 sequence. The isolated nucleic acid (A) and
CC fragments of (A) are used for the species-specific detection of
CC Neisseria gonorrhoeae in standard amplification or hybridization assays.
CC Fragments of (A) are species-specific with no detectable cross-reaction
CC with any other species, so they provide a rapid, reliable and selective
CC (down to 10 genomic copies) diagnosis. AAZ24068-Z24090 represent PCR
CC primers used in the identification of the N. gonorrhoeae GC3 fragment
CC described in the method of the invention.
XX
SQ Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 16;
Best Local Similarity 87.5%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 756 TGATATTTGAAGCATC 771
||| |||||| |||||
Db 16 TGACATTTGACGCATC 1

RESULT 489
AAZ28412/c
ID AAZ28412 standard; DNA; 16 BP.
XX
AC AAZ28412;
XX
DT 20-DEC-1999 (first entry)
XX
DE PCR primer UD2S340 used to amplify the D2S340 microsatellite marker.
XX
KW PCR primer; microsatellite marker; diagnosis; asthma; predisposition;
KW chromosome 2; genetic polymorphism; D2S340; detect; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9950451-A1.
XX
PD 07-OCT-1999.
XX
PF 26-MAR-1999; 99WO-GB00968.
XX
PR 27-MAR-1998; 98GB-0006652.
XX
PA (ISIS-) ISIS INNOVATION LTD.
XX
PI Cookson WOCM, Moffatt MF, Bhattacharyya S, Leaves N;
XX
DR WPI; 1999-601341/51.
XX
PT Diagnosing asthma, or an asthmatic predisposition, from the presence of
PT specific alleles at a locus on chromosome 2 -
XX
PS Claim 9; Page 8; 21pp; English.
XX
CC PCR primers AAZ28411-Z28412 are used to amplify the microsatellite
CC markers associated with the allele situated on chromosome 2, containing
CC the D2S340 locus. The D2S340 microsatellite markers are contained in the
CC region of chromosome 2 containing the IL2 (interleukin 2) cluster of

CC genes. The invention relates to a method for diagnosing asthma or a
CC predisposition to asthma. The products of PCR primers AAZ28409-Z28418
CC are used to detect any alleles that may be connected with asthma. The
CC D2S308*3 allele (PCR primers AAZ28409-Z28410 are used to amplify the
CC associated microsatellite markers) is used in the claimed methods to
CC identify children at risk of developing asthma by examination
CC immediately after birth, potentially allowing the disease to be
CC prevented. The methods may also allow a prognosis of the severity of a
CC condition and responses to particular treatments.
XX
SQ Sequence 16 BP; 1 A; 5 C; 3 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 16;
Best Local Similarity 87.5%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 685 GCAAAATTGGGCCAAG 700
||||||||||| |||
Db 16 GCAAAACTGGGCAAAG 1

RESULT 490
AAI67028
ID AAI67028 standard; DNA; 16 BP.
XX
AC AAI67028;
XX
DT 11-FEB-2002 (first entry)
XX
DE Human PLSCR1 intron 5/exon 6 junction sequence.
XX
KW Phospholipid scramblase; PLSCR; membrane protein; virucide; vaccine;
KW cytostatic; leukemia; cancer; PLSCR1; human; ss.
XX
OS Homo sapiens.
XX
PN WO200174295-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US10388.
XX
PR 31-MAR-2000; 2000US-193939P.
XX
PA (SCRI) SCRIPPS RES INST.
PA (CLEV-) CLEVELAND CLINIC FOUND.
XX
PI Sims PJ, Silverman RH, Wiedmer T;
XX
DR WPI; 2001-626334/72.
XX
PT Novel membrane proteins, phospholipid scramblase polypeptides, useful
PT for treating and preventing cancer and viral infections, are induced by
PT interferons -
XX
PS Example 8; Page 61; 94pp; English.
XX
CC The invention provides phospholipid scramblase (PLSCR) polypeptides and
CC polynucleotides encoding them. PLSCR are membrane proteins that mediate
CC accelerated trans-bilayer movement of plasma membrane phospholipids in
CC response to elevated cytoplasmic calcium. The PLSCR polypeptides are
CC useful for inhibiting or preventing viral infection (e.g. infection of a
CC membrane-bound virus or virus such as rhabdovirus, filovirus, retrovirus,
CC flavivirus, coronavirus, orthomyxovirus, bunyavirus, hepadnavirus,
CC herpesvirus, poxvirus, togavirus, iridovirus, paramyxovirus, arenavirus,
CC HIV, Ebola virus, Marburg virus and Rabies virus). The polynucleotides
CC are useful for treating a subject having or at risk of having a disorder
CC associated with a PLSCR polypeptide or polynucleotide. Compounds
CC modulating the PLSCR activity, are useful for treating viral infection or
CC cancer e.g. hairy cell leukemia, chronic myelogenous leukemia, myeloma,
CC melanoma, renal cell carcinoma, Kaposi's sarcoma, follicular lymphoma,
CC thrombocythemia or erythroleukemia. PLSCR is also useful for treating and
CC preventing cancer. Sequences AAI670194-34 represent human PLSCR1
CC exon/intron junction sequences.
XX
SQ Sequence 16 BP; 4 A; 1 C; 2 G; 9 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 16;
Best Local Similarity 87.5%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1196 GTTTTTAGATTAAACA 1211
||||||||| || ||||
Db 1 GTTTTTAGTTTTAACA 16

RESULT 491
AAD15192
ID AAD15192 standard; DNA; 16 BP.
XX
AC AAD15192;
XX
DT 01-NOV-2001 (first entry)
XX
DE 5' RT-PCR primer for rabbit REC1_22 clone.
XX
KW Fatty lesion development; atherosclerosis; Alzheimer's disease;
KW nervous system disorder; Parkinson's disease; immune system disorder;
KW ischaemia; lymphopaenia; leukocyte adhesion deficiency syndrome;
KW haemoglobinuria; anaemia; hyperproliferative disorder; Gaucher's disease;
KW coagulation disorder; blood platelet disorder; autoimmune disorder;
KW dermatitis; herpes simplex; Addison's disease; rheumatoid arthritis;
KW Grave's disease; gene therapy; antiarteriosclerotic; immunostimulant;
KW cardiovascular; antiviral; RT-PCR primer; rabbit; ss.
XX
OS Oryctolagus cuniculus.
XX
PN WO200154651-A2.
XX
PD 02-AUG-2001.
XX
PF 25-JAN-2001; 2001WO-US02439.
XX
PR 25-JAN-2000; 2000US-0177963.
XX
PA (DIGI-) DIGITAL GENE TECHNOLOGIES INC.
XX
PI Leonardi A, Sartani A, Glass JR, Sutcliffe JG, Hasel KW;
XX
DR WPI; 2001-514526/56.
XX
PT New polynucleotides regulated by fatty lesion development and their
PT encoded polypeptides, useful for preventing, treating or ameliorating
PT atherosclerosis, as well as for immune or hyperproliferative disorders
PT -
XX
PS Example 2; Page 124; 188pp; English.
XX
CC The present invention relates to an isolated nucleic acid regulated by
CC fatty lesion development, which comprises any of 55 polynucleotide
CC sequences from Oryctolagus cuniculus. The polynucleotide, polypeptide or
CC antibody is useful for preventing, treating, modulating or ameliorating
CC a medical condition, particularly atherosclerosis. The invention is used
CC as a marker or detector of nervous system disorder or disease (e.g.
CC Parkinson's disease, Alzheimer's disease, ischaemia, dementia). The
CC invention may also be useful for treating deficiencies or disorders of
CC the immune system (e.g. lymphopaenia, leukocyte adhesion deficiency
CC syndrome or haemoglobinuria, anaemia), hyperproliferative disorders
CC (e.g.Gaucher's disease), infectious disease (e.g. herpes simplex),
CC coagulation disorders, blood platelet disorders and autoimmune disorders
CC (Addison's disease, rheumatoid arthritis, dermatitis, Grave's disease).
CC The polynucleotide sequence is also used in gene therapy. The present
CC sequence is a 5' RT-PCR primer for rabbit REC1_22 clone.
XX
SQ Sequence 16 BP; 0 A; 6 C; 5 G; 5 T; 0 other;

```
  Query Match             1.0%;  Score 12.8;  DB 1;  Length 16;
  Best Local Similarity   87.5%;  Pred. No. 4.1e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        897 GTGCCTTGGTTTCTCC 912
              | ||||||| ||||||
Db          1 GGGCCTTGGCTTCTCC 16


RESULT 492
AAT53752
ID   AAT53752 standard; RNA; 17 BP.
XX
AC   AAT53752;
XX
DT   25-MAR-2003  (updated)
DT   03-APR-1997  (first entry)
XX
DE   Rat ICAM hammerhead ribozyme target sequence (nt. position 2906).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome;
KW   AIDS; ss.
XX
OS   Rattus rattus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB00156.
XX
PR   30-JAN-1995;   95US-0380734.
PR   23-FEB-1994;   94US-0201109.
PR   29-MAR-1994;   94US-0218934.
PR   04-APR-1994;   94US-0222795.
PR   07-APR-1994;   94US-0224483.
PR   15-APR-1994;   94US-0227958.
PR   15-APR-1994;   94US-0228041.
PR   18-MAY-1994;   94US-0245736.
PR   06-JUL-1994;   94US-0271280.
PR   15-AUG-1994;   94US-0291932.
PR   16-AUG-1994;   94US-0291433.
PR   17-AUG-1994;   94US-0292620.
PR   19-AUG-1994;   94US-0293520.
PR   02-SEP-1994;   94US-0300000.
PR   08-SEP-1994;   94US-0303039.
PR   23-SEP-1994;   94US-0311486.
PR   23-SEP-1994;   94US-0311749.
PR   28-SEP-1994;   94US-0314397.
PR   03-OCT-1994;   94US-0316771.
PR   07-OCT-1994;   94US-0319492.
PR   11-OCT-1994;   94US-0321993.
PR   04-NOV-1994;   94US-0334847.
PR   10-NOV-1994;   94US-0337608.
PR   28-NOV-1994;   94US-0345516.
PR   16-DEC-1994;   94US-0357577.
PR   23-DEC-1994;   94US-0363233.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D;
PI   Thompson JD,  Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them -
PT   for use in inhibiting disease related genes
XX
PS   Claim 2; Page 204; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for
CC   an enzymatic nucleic acid (i.e. a ribozyme) which cleaves ICAM-1
CC   mRNA at the nucleotide base position indicated in the DE line.
CC   Regions of the mRNA that do not form secondary folding
CC   structures and that contain potential hammerhead and hairpin
CC   ribozyme cleavage sites were identified by computer analysis.
CC   Ribozymes directed against these mRNA sequences were designed and
CC   synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes cleave the ICAM-1 target sequences and
CC   thereby inhibit ICAM-1 expression, making them useful for reducing
CC   transplant rejection and alleviating symptoms in patients with
CC   rheumatoid arthritis, asthma and other inflammatory disorders.
CC   (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 17 BP; 5 A; 0 C; 3 G; 9 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   31.2%;  Pred. No. 4.3e+02;
  Matches    5;  Conservative    9;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1047 TTTATGTATTTATTTA 1062
              :: |:|:|:::|:: |
Db          2 UUGAUGUAUUUAUUAA 17


RESULT 493
AAT81507/c
ID   AAT81507 standard; RNA; 17 BP.
XX
AC   AAT81507;
XX
DT   14-DEC-1997  (first entry)
XX
DE   Human c-myb hammerhead ribozyme target sequence (nt. position 2715).
XX
KW   Enzymatic nucleic acid; hammerhead; ribozyme; cleavage; human;
KW   smooth muscle cell; hyperproliferation; restenosis; cancer;
KW   c-myb; coronary angioplasty; ss.
XX
OS   Homo sapiens.
XX
PN   WO9531541-A2.
XX
PD   23-NOV-1995.
XX
PF   18-MAY-1995;   95WO-US06368.
XX
PR   13-JAN-1995;   95US-0373124.
PR   18-MAY-1994;   94US-0245466.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Draper K,  Jarvis T,  McSwiggen J,  Stinchcomb DT;
XX
DR   WPI; 1996-010927/01.
XX
PT   New enzymatic nucleic acid molecules - which cleave RNA produced by
PT   e.g. c-myb, for treating restenosis or cancer
XX
PS   Claim 1; Page 77; 128pp; English.
XX
CC   The present sequence represents the preferred target sequence for an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the human c-myb sequence at the base position indicated in the
CC   descriptor line. The c-myb sequence was screened for optimal ribozyme
```

```
CC   target sites using a computer folding algorithm, and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified. Ribozymes were synthesised and
CC   their activities optimised by either varying the length of the binding
CC   arms or by modification to prevent degradation by nucleases.
CC   The ribozymes cleave the c-myb sequence and can be used to prevent
CC   smooth muscle cell hyperproliferation in restenosis, especially after
CC   coronary angioplasty, and in cancers.
XX
SQ   Sequence 17 BP; 7 A; 0 C; 0 G; 10 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1613 ATTTAAAATATAATTT 1628
              | | ||||||||||||
Db         17 AATAAAAATATAATTT 2


RESULT 494
AAX71475
ID   AAX71475 standard; RNA; 17 BP.
XX
AC   AAX71475;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human KDR VEGF receptor hammerhead ribozyme substrate #487.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 111; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 7 A; 0 C; 4 G; 6 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   56.2%;  Pred. No. 4.3e+02;
  Matches    9;  Conservative    5;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1116 GAATAGTTATAAAGAT 1131
              | |:| ::|:|||||:
Db          2 GGAUAUUUAUAAAGAU 17


RESULT 495
AAX71476
ID   AAX71476 standard; RNA; 17 BP.
XX
AC   AAX71476;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human KDR VEGF receptor hammerhead ribozyme substrate #488.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 111; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 3 G; 6 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   56.2%;  Pred. No. 4.3e+02;
  Matches    9;  Conservative    5;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1116 GAATAGTTATAAAGAT 1131
              | |:| ::|:|||||:
Db          1 GGAUAUUUAUAAAGAU 16


RESULT 496
AAX71100
```

```
ID   AAX71100 standard; RNA; 17 BP.
XX
AC   AAX71100;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human KDR VEGF receptor hammerhead ribozyme substrate #112.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 100; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 6 A; 2 C; 2 G; 7 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   50.0%;  Pred. No. 4.3e+02;
  Matches    8;  Conservative    6;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1457 GTTTATTATGTACAAA 1472
              |: :|::|:|:||| |
Db          2 GUCUAUUAUGUACAUA 17


RESULT 497
AAX70078/c
ID   AAX70078 standard; RNA; 17 BP.
XX
AC   AAX70078;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1373.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 88; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 2 A; 2 C; 2 G; 11 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1201 TAGATTAAACAAACAA 1216
              ||| | ||||||||||
Db         16 TAGGTAAAACAAACAA 1


RESULT 498
AAX69806/c
ID   AAX69806 standard; RNA; 17 BP.
XX
AC   AAX69806;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1101.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
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PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 80; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 3 A; 2 C; 0 G; 12 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1085 ATTTGGAAAAATAGAA 1100
              ||||||||||| | ||
Db         17 ATTTGGAAAAAAAAAA 2


RESULT 499
AAX69807/c
ID   AAX69807 standard; RNA; 17 BP.
XX
AC   AAX69807;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #1102.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 80; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 3 A; 3 C; 0 G; 11 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1085 ATTTGGAAAAATAGAA 1100
              ||||||||||| | ||
Db         16 ATTTGGAAAAAAAAAA 1


RESULT 500
AAX69416/c
ID   AAX69416 standard; RNA; 17 BP.
XX
AC   AAX69416;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Human flt1 VEGF receptor hammerhead ribozyme substrate #711.
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1;
KW   flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Homo sapiens.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US17480.
XX
PR   11-JAN-1996;   96US-0584040.
PR   26-OCT-1995;   95US-0005974.
XX
PA   (CHIR ) CHIRON CORP.
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Escobedo J,  McSwiggen J,  Pavco P,  Stinchcomb D;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or
PT   mRNA stability  - useful for treating e.g. tumour angiogenesis,
PT   psoriasis, rheumatoid arthritis, etc., in a human patient
XX
PS   Claim 4; Page 68; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
```

```
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can
CC   be treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention.
XX
SQ   Sequence 17 BP; 3 A; 5 C; 1 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1586 ATGGAAATATAAAAGT 1601
              ||||||| ||||| ||
Db         16 ATGGAAAGATAAAGGT 1


RESULT 501
AAT60201/c
ID   AAT60201 standard; DNA; 17 BP.
XX
AC   AAT60201;
XX
DT   03-FEB-1998  (first entry)
XX
DE   Synthetic cdc2 kinase ribozyme recognition site #5.
XX
KW   Ribozyme; hairpin; hammerhead; recognition site; cdc2 kinase;
KW   restenosis; growth factor; oncogene; vascular tissue;
KW   smooth muscle cell proliferation; ss.
XX
OS   Synthetic.
XX
PN   WO9710334-A2.
XX
PD   20-MAR-1997.
XX
PF   12-SEP-1996;   96WO-US14838.
XX
PR   12-SEP-1995;   95US-0527060.
XX
PA   (IMMU-) IMMUSOL INC.
XX
PI   Goldenberg T,  Tritz R;
XX
DR   WPI; 1997-202230/18.
XX
PT   New hairpin and hammer:head ribozyme(s) - which inhibit abnormal
PT   smooth muscle cell proliferation in vascular tissue, partic. for
PT   preventing or treating restenosis
XX
PS   Example 1; Page 15; 50pp; English.
XX
CC   This sequence represents a ribozyme recognition site of the cdc2
CC   kinase gene which is cleaved by a hammerhead ribozyme at position 159.
CC   Novel hairpin and hammerhead ribozymes are being investigated for their
CC   ability to inhibit the activity of a growth factor (e.g. cdc2 kinase)
CC   responsible for abnormal smooth muscle cell (SMC) proliferation in
CC   vascular tissue leading to restenosis. The ribozymes can also directly
CC   block the production of oncogenes and cell  regulatory factors involved
CC   with SMC growth following vascular injury.
XX
SQ   Sequence 17 BP; 7 A; 2 C; 1 G; 7 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1172 TTTATTAGATAAATTT 1187
              |||| |||| ||||||
Db         16 TTTAATAGAGAAATTT 1


RESULT 502
AAV96640
ID   AAV96640 standard; RNA; 17 BP.
XX
AC   AAV96640;
XX
DT   01-MAR-1999  (first entry)
XX
DE   Potato citrate synthase target sequence position 1334.
XX
KW   Solanidine; glucosyltransferase; potato; citrate synthase; target;
KW   hammerhead ribozyme; hairpin ribozyme; alkaloid biosynthesis;
KW   flower formation; cleavage; solanaceous plant; ss.
XX
OS   Solanum tuberosum.
XX
PN   WO9832843-A2.
XX
PD   30-JUL-1998.
XX
PF   14-JAN-1998;   98WO-US00738.
XX
PR   24-NOV-1997;   97US-0979416.
PR   28-JAN-1997;   97US-0036545.
PR   28-JAN-1997;   97US-0036599.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   McSwiggen JA,  Zwick MG;
XX
DR   WPI; 1998-427939/36.
XX
PT   New enzymatic nucleic acid(s) - useful for, e.g. reducing alkaloid
PT   biosynthesis or regulating flowering
XX
PS   Claim 53; Page 56; 79pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA-cleaving activity (e.g. ribozymes) which are capable of modulating
CC   the expression of plant genes: (i) involved in biosynthesis of
CC   alkaloids; or (ii) involved in flower formation. AAV95982 to AAV96334,
CC   and AAV96335 to AAV96354 represent potato solanidine glucosyltransferase
CC   hammerhead and hairpin ribozymes, respectively. AAV95629 to AAV95981,
CC   and AAV96355 to AAV96734 represent potato solanidine glucosyltransferase
CC   target sequences. AAV96773 to AAV97170, and AAV97171 to AAV97195
CC   represent potato citrate synthase hammerhead and hairpin ribozymes,
CC   respectively. AAV96735 to AAV96772, and AAV97196 to AAV97220 represent
CC   potato citrate synthase target sequences. Ribozymes of the present
CC   invention can be used to inhibit the synthesis of toxic alkaloids in
CC   solanaceous plants, particularly potato but also tomato, pepper,
CC   aubergine and ditura or to inhibit flowering in potato, lettuce, spinach,
CC   cabbage, brussel sprouts, arugula, kale, collards, chard, beet, turnip,
CC   sweet potato and turf grass. Also the ribozymes can be used for RNA
CC   manipulation in the same way that restriction endonucleases are for DNA,
CC   as well as to examine  genetic drift and mutations in plants and to
CC   detect specific RNA. The  ribozymes can be targeted to specific genes or
CC   to consensus sequences  within a family of related genes, and being
CC   catalytic need to be  present at only very low concentrations.
XX
SQ   Sequence 17 BP; 5 A; 1 C; 4 G; 7 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   43.8%;  Pred. No. 4.3e+02;
  Matches    7;  Conservative    7;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1283 TTATTGTTTATCTGAA 1298
              ::|: |:::| |:|||
Db          1 UUAUGGUUUAACUGAA 16


RESULT 503
AAV95779
ID   AAV95779 standard; RNA; 17 BP.
XX
```

```
AC   AAV95779;
XX
DT   01-MAR-1999  (first entry)
XX
DE   Solanidine glucosyltransferase target sequence position 579.
XX
KW   Solanidine; glucosyltransferase; potato; citrate synthase; target;
KW   hammerhead ribozyme; hairpin ribozyme; alkaloid biosynthesis;
KW   flower formation; cleavage; solanaceous plant; ss.
XX
OS   Solanum tuberosum.
XX
PN   WO9832843-A2.
XX
PD   30-JUL-1998.
XX
PF   14-JAN-1998;   98WO-US00738.
XX
PR   24-NOV-1997;   97US-0979416.
PR   28-JAN-1997;   97US-0036545.
PR   28-JAN-1997;   97US-0036599.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   McSwiggen JA,  Zwick MG;
XX
DR   WPI; 1998-427939/36.
XX
PT   New enzymatic nucleic acid(s) - useful for, e.g. reducing alkaloid
PT   biosynthesis or regulating flowering
XX
PS   Claim 13; Page 47; 79pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA-cleaving activity (e.g. ribozymes) which are capable of modulating
CC   the expression of plant genes: (i) involved in biosynthesis of
CC   alkaloids; or (ii) involved in flower formation. AAV95982 to AAV96334,
CC   and AAV96335 to AAV96354 represent potato solanidine glucosyltransferase
CC   hammerhead and hairpin ribozymes, respectively. AAV95629 to AAV95981,
CC   and AAV96355 to AAV96734 represent potato solanidine glucosyltransferase
CC   target sequences. AAV96773 to AAV97170, and AAV97171 to AAV97195
CC   represent potato citrate synthase hammerhead and hairpin ribozymes,
CC   respectively. AAV96735 to AAV96772, and AAV97196 to AAV97220 represent
CC   potato citrate synthase target sequences. Ribozymes of the present
CC   invention can be used to inhibit the synthesis of toxic alkaloids in
CC   solanaceous plants, particularly potato but also tomato, pepper,
CC   aubergine and ditura or to inhibit flowering in potato, lettuce, spinach,
CC   cabbage, brussel sprouts, arugula, kale, collards, chard, beet, turnip,
CC   sweet potato and turf grass. Also the ribozymes can be used for RNA
CC   manipulation in the same way that restriction endonucleases are for DNA,
CC   as well as to examine  genetic drift and mutations in plants and to
CC   detect specific RNA. The  ribozymes can be targeted to specific genes or
CC   to consensus sequences  within a family of related genes, and being
CC   catalytic need to be  present at only very low concentrations.
XX
SQ   Sequence 17 BP; 8 A; 1 C; 4 G; 4 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   62.5%;  Pred. No. 4.3e+02;
  Matches   10;  Conservative    4;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1175 ATTAGATAAATTTCAA 1190
              |: |||:||| ::|||
Db          2 AUGAGAUAAAGUUCAA 17


RESULT 504
AAV24553
ID   AAV24553 standard; DNA; 17 BP.
XX
AC   AAV24553;
XX
DT   16-SEP-1998  (first entry)
XX
DE   PCR primer for DNA polymerase fragment coding sequence.
XX
KW   DNA polymerase; HBV; RNA intermediate; nucleotide analogue sensitivity;
KW   surface antigen interaction; sAg; antibody interaction; PCR primer;
KW   anti-viral therapy; ss.
XX
OS   Synthetic.
OS   Hepatitis b virus.
XX
PN   WO9821317-A1.
XX
PD   22-MAY-1998.
XX
PF   15-AUG-1997;   97WO-AU00520.
XX
PR   08-NOV-1996;   96AU-0003519.
XX
PA   (WHEA-) WESTERN HEALTH CARE NETWORK.
XX
PI   Aye TT,  Bartholomeusz AI,  De Man RA,  Locarnini SA;
XX
DR   WPI; 1998-297924/26.
XX
PT   Variants of DNA virus replicating through RNA intermediate,
PT   especially hepatitis B - have mutations in genes for DNA polymerase,
PT   surface antigen or region of overlapping reading frames, and show
PT   reduced sensitivity to antiviral agents or antibodies
XX
PS   Example 3; Page 19; 53pp; English.
XX
CC   This sequence is a PCR primer for DNA encoding a fragment of a
CC   Hepatitis b virus (HBV) DNA polymerase. The amplified fragment can be
CC   mutated to give the variant of a DNA virus of the invention, that
CC   replicates via an RNA intermediate. Detection of mutations in the
CC   encoded protein sequence can be used in a method for determining if a HBV
CC   isolate has reduced sensitivity to a nucleotide analogue or if its
CC   surface antigen (sAg) has reduced interaction with antibodies. Mutations
CC   in the DNA polymerase gene indicate (partial) resistance to nucleotide
CC   analogues while those in the sAg gene indicate reduced interaction with
CC   specific antibodies. Detecting sequences containing these mutations is
CC   used to monitor anti-viral treatments (chemotherapy and/or vaccination)
CC   and to screen for agents that can overcome the effects of such mutations
CC   (potentially useful in long-term treatments with nucleotide analogues).
XX
SQ   Sequence 17 BP; 5 A; 4 C; 1 G; 7 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1556 CTCCAAATTTTTTTTA 1571
              |||||||| ||| ||
Db          2 CTCCAAATTCTTTATA 17


RESULT 505
AAV24555
ID   AAV24555 standard; DNA; 17 BP.
XX
AC   AAV24555;
XX
DT   16-SEP-1998  (first entry)
XX
DE   PCR primer for DNA polymerase fragment coding sequence.
XX
KW   DNA polymerase; HBV; RNA intermediate; nucleotide analogue sensitivity;
KW   surface antigen interaction; sAg; antibody interaction; PCR primer;
KW   anti-viral therapy; ss.
XX
OS   Synthetic.
OS   Hepatitis b virus.
XX
```

PN WO9821317-A1.
XX
PD 22-MAY-1998.
XX
PF 15-AUG-1997; 97WO-AU00520.
XX
PR 08-NOV-1996; 96AU-0003519.
XX
PA (WHEA-) WESTERN HEALTH CARE NETWORK.
XX
PI Aye TT, Bartholomeusz AI, De Man RA, Locarnini SA;
XX
DR WPI; 1998-297924/26.
XX
PT Variants of DNA virus replicating through RNA intermediate,
PT especially hepatitis B - have mutations in genes for DNA polymerase,
PT surface antigen or region of overlapping reading frames, and show
PT reduced sensitivity to antiviral agents or antibodies
XX
PS Example 3; Page 19; 53pp; English.
XX
CC This sequence is a PCR primer for DNA encoding a fragment of a
CC Hepatitis b virus (HBV) DNA polymerase. The amplified fragment can be
CC mutated to give the variant of a DNA virus of the invention, that
CC replicates via an RNA intermediate. Detection of mutations in the
CC encoded protein sequence can be used in a method for determining if a HBV
CC isolate has reduced sensitivity to a nucleotide analogue or if its
CC surface antigen (sAg) has reduced interaction with antibodies. Mutations
CC in the DNA polymerase gene indicate (partial) resistance to nucleotide
CC analogues while those in the sAg gene indicate reduced interaction with
CC specific antibodies. Detecting sequences containing these mutations is
CC used to monitor anti-viral treatments (chemotherapy and/or vaccination)
CC and to screen for agents that can overcome the effects of such mutations
CC (potentially useful in long-term treatments with nucleotide analogues).
XX
SQ Sequence 17 BP; 5 A; 4 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1556 CTCCAAATTTTTTTTA 1571
||||||||| ||| ||
Db 2 CTCCAAATTCTTTATA 17

RESULT 506
AAA18614/c
ID AAA18614 standard; RNA; 17 BP.
XX
AC AAA18614;
XX
DT 19-JUN-2000 (first entry)
XX
DE Human TIE-2 substrate sequence SEQ ID NO:1840.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 56; Page 106; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 6 A; 3 C; 2 G; 6 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 975 TGTGGAAGCACTTTAA 990
| |||||| |||||||
Db 17 TTTGGAAGAACTTTAA 2

RESULT 507
AAA18615/c
ID AAA18615 standard; RNA; 17 BP.
XX
AC AAA18615;
XX
DT 19-JUN-2000 (first entry)
XX
DE Human TIE-2 substrate sequence SEQ ID NO:1841.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX

PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 56; Page 106; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 6 A; 3 C; 2 G; 6 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 975 TGTGGAAGCACTTTAA 990
|| |||||| |||||||
Db 16 TTTGGAAGAACTTTAA 1

RESULT 508
AAA21157
ID AAA21157 standard; RNA; 17 BP.
XX
AC AAA21157;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:4383.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW age related macular degeneration; inflammation; neovascular glaucoma;
KW myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS Homo sapiens.
XX
PN WO9950403-A2.
XX
PD 07-OCT-1999.
XX
PF 24-MAR-1999; 99WO-US06507.
XX
PR 27-MAR-1998; 98US-0079678.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Pavco PA, Roberts E, Jarvis T, Coeshott C, McSwiggen JA;
XX
DR WPI; 1999-591315/50.
XX
PT Novel ribozymes for modulating the synthesis, expression and/or
PT stability of an mRNA encoding an angiogenic factors -
XX
PS Claim 55; Page 190; 305pp; English.
XX
CC The present invention describes enzymatic nucleic acid molecules with
CC RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC and AAA19155 to AAA19222 represent their corresponding target sequences;
CC AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC AAA21596 to AAA21688 represent their corresponding target sequences;
CC AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC AAA23422 represent their corresponding target sequences. The ribozymes of
CC the invention are used for modulating the synthesis, expression and/or
CC stability of an mRNA encoding angiogenic factor, especially ARNT,
CC integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC especially used to treat cancer, diabetic retinopathy, age related
CC macular degeneration (ARMD), inflammation, and arthritis, as well as
CC neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ Sequence 17 BP; 6 A; 2 C; 1 G; 8 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 43.8%; Pred. No. 4.3e+02;
Matches 7; Conservative 7; Mismatches 2; Indels 0; Gaps 0;

Qy 1002 ATAACATAAATTATTT 1017
|: || :|||::|:::
Db 2 AUGACCUAAAUUAUUU 17

RESULT 509
AAA21200
ID AAA21200 standard; RNA; 17 BP.
XX
AC AAA21200;
XX
DT 19-JUN-2000 (first entry)
XX
DE Integrin alpha 6 subunit substrate sequence SEQ ID NO:4426.
XX
KW Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;

```
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 55; Page 193; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 3 A; 2 C; 4 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   43.8%;  Pred. No. 4.3e+02;
  Matches    7;  Conservative    7;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        722 TTAATTTCAGGAATTG 737
              :: |:::|||| |::|
Db          2 UUUAUUUCAGGCAUUG 17


RESULT 510
AAA21469/c
ID   AAA21469 standard; RNA; 17 BP.
XX
AC   AAA21469;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4695.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 55; Page 210; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 9 A; 0 C; 0 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1133 TTATAGTAAATTTATT 1148
              ||||| |||||||||
Db         16 TTATAAAAAATTTATT 1


RESULT 511
AAA21476/c
```

```
ID   AAA21476 standard; RNA; 17 BP.
XX
AC   AAA21476;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin alpha 6 subunit substrate sequence SEQ ID NO:4702.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 55; Page 210; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 4 A; 2 C; 3 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        539 AAACAATGAATAGTTT 554
              ||||||||||  | |||
Db         16 AAACAATGAACACTTT 1


RESULT 512
AAA22708
ID   AAA22708 standard; RNA; 17 BP.
XX
AC   AAA22708;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:5934.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 237; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 3 A; 0 C; 1 G; 13 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
```

```
  Best Local Similarity   18.8%;  Pred. No. 4.3e+02;
  Matches    3;  Conservative   11;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1044 TTATTTATGTATTTAT 1059
              ::|:::|: :|::: :
Db          1 UUAUUUAUUUAUUUUU 16


RESULT 513
AAA22776/c
ID   AAA22776 standard; RNA; 17 BP.
XX
AC   AAA22776;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6002.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 241; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 8 A; 3 C; 1 G; 5 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        546 GAATAGTTTTCATTG 561
              ||||||||| || |||
Db         17 GAATAGTTTATCTTTG 2


RESULT 514
AAA22898/c
ID   AAA22898 standard; RNA; 17 BP.
XX
AC   AAA22898;
XX
DT   19-JUN-2000  (first entry)
XX
DE   Integrin subunit beta 3 substrate sequence SEQ ID NO:6124.
XX
KW   Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis;
KW   integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme;
KW   hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic;
KW   ophthalmologic; antiinflammatory; antiarthritic; antipsoriatic; ARMD;
KW   dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis;
KW   age related macular degeneration; inflammation; neovascular glaucoma;
KW   myopic degeneration; psoriasis; verruca vulgaris; angiofibroma;
KW   tuberous sclerosis; pot-wine stain; Sturge Weber syndrome;
KW   Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO9950403-A2.
XX
PD   07-OCT-1999.
XX
PF   24-MAR-1999;   99WO-US06507.
XX
PR   27-MAR-1998;   98US-0079678.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Pavco PA,  Roberts E,  Jarvis T,  Coeshott C,  McSwiggen JA;
XX
DR   WPI; 1999-591315/50.
XX
PT   Novel ribozymes for modulating the synthesis, expression and/or
PT   stability of an mRNA encoding an angiogenic factors  -
XX
PS   Claim 54; Page 249; 305pp; English.
XX
CC   The present invention describes enzymatic nucleic acid molecules with
CC   RNA cleaving activity, which specifically cleave RNA encoded by an aryl
CC   hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3
CC   gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to
CC   AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,
CC   and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
CC   corresponding target sequences; AAA17685 to AAA18385 and AAA19087 to
CC   AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086
CC   and AAA19155 to AAA19222 represent their corresponding target sequences;
CC   AAA19223 to AAA20361 and AAA21501 to AAA21595 represent ribozyme
CC   sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
CC   AAA21596 to AAA21688 represent their corresponding target sequences;
CC   AAA21689 to AAA22475 and AAA23263 to AAA23342 represent ribozyme sequence
CC   for integrin subunit beta 3, and AAA22476 to AAA23262, AAA23343 to
CC   AAA23422 represent their corresponding target sequences. The ribozymes of
CC   the invention are used for modulating the synthesis, expression and/or
CC   stability of an mRNA encoding angiogenic factor, especially ARNT,
CC   integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are
CC   especially used to treat cancer, diabetic retinopathy, age related
```

```
CC   macular degeneration (ARMD), inflammation, and arthritis, as well as
CC   neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris,
CC   angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber
CC   syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome,
CC   and other syndromes and diseases related to the levels of ARNT, Tie-2,
CC   integrin subunit alpha-6, or integrin subunit beta-3.
XX
SQ   Sequence 17 BP; 13 A; 0 C; 0 G; 4 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1045 TATTTATGTATTTATT 1060
              ||||||| ||||| ||
Db         17 TATTTATTTATTTTTT 2


RESULT 515
AAZ24086/c
ID   AAZ24086 standard; DNA; 17 BP.
XX
AC   AAZ24086;
XX
DT   04-FEB-2000  (first entry)
XX
DE   N. gonorrhoeae GC3 DNA fragment PCR primer 21.
XX
KW   GC3; species-specific detection; amplification; diagnosis; primer; ss.
XX
OS   Synthetic.
OS   Neisseria gonorrheae.
XX
PN   DE19918479-A1.
XX
PD   28-OCT-1999.
XX
PF   23-APR-1999;   99DE-1018479.
XX
PR   27-APR-1998;   98US-0067773.
XX
PA   (BECT ) BECTON DICKINSON & CO.
XX
PI   You Q;
XX
DR   WPI; 1999-602549/52.
XX
PT   Isolated nucleic acid for the GC-3 fragment from Neisseria gonorrhoeae,
PT   useful for species-specific detection -
XX
PS   Claim 3; Page 29; 37pp; German.
XX
CC   This invention describes a novel isolated nucleic acid (A) for the
CC   Neisseria gonorrhoeae GC-3 sequence. The isolated nucleic acid (A) and
CC   fragments of (A) are used for the species-specific detection of
CC   Neisseria gonorrhoeae in standard amplification or hybridization assays.
CC   Fragments of (A) are species-specific with no detectable cross-reaction
CC   with any other species, so they provide a rapid, reliable and selective
CC   (down to 10 genomic copies) diagnosis. AAZ24068-Z24090 represent PCR
CC   primers used in the identification of the N. gonorrhoeae GC3 fragment
CC   described in the method of the invention.
XX
SQ   Sequence 17 BP; 5 A; 3 C; 5 G; 4 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        756 TGATATTTGAAGCATC 771
              ||| |||||| |||||
Db         17 TGACATTTGACGCATC 2


RESULT 516
AAX80243/c
ID   AAX80243 standard; DNA; 17 BP.
XX
AC   AAX80243;
XX
DT   18-AUG-1999  (first entry)
XX
DE   Human BRCA1 wild type allele specific oligonucleotide SEQ ID NO:17.
XX
KW   Human; BRCA1; wild type; mutant; detection; primer; probe; cancer;
KW   breast cancer susceptibility gene; identification; variation;
KW   hybridisation; breast cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9929903-A2.
XX
PD   17-JUN-1999.
XX
PF   07-DEC-1998;   98WO-US25916.
XX
PR   11-DEC-1997;   97US-0988706.
XX
PA   (GENE-) GENE LOGIC.
XX
PI   Allen AP,  Angelly TS,  Lawrence T,  Lescallett JL;
PI   Murphy PD,  Olson SJ,  Sadzewicz LK,  Thurber DB,  White MB;
PI   Zeng B;
XX
DR   WPI; 1999-385623/32.
XX
PT   Mutants in BRCA gene associated with cancer
XX
PS   Claim 15; Page 64; 118pp; English.
XX
CC   The present invention describes fifteen new mutants of the breast cancer
CC   susceptibility gene BRCA1 gene, the mutations being located at
CC   nucleotides 421-2, 815, 926, 1506, 2034, 2428, 4643, 5053, 5210,
CC   5396+40, 5150, 3904, 3888, 903, and 4164. AAX80235 to AAX80289 represent
CC   allele specific oligonucleotides for the mutant and wild type sequences
CC   of human BRCA1, and so are capable of identifying the normal or mutant
CC   gene by hybridisation. Methods from the present invention may be used
CC   for detecting a predisposition to cancer, especially breast cancer.
XX
SQ   Sequence 17 BP; 6 A; 2 C; 3 G; 6 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        524 AATTTGAATTTCAGTA 539
              |||||| | |||||||
Db         17 AATTTGCAATTCAGTA 2


RESULT 517
AAX80244/c
ID   AAX80244 standard; DNA; 17 BP.
XX
AC   AAX80244;
XX
DT   18-AUG-1999  (first entry)
XX
DE   Human BRCA1 mutant allele specific oligonucleotide SEQ ID NO:18.
XX
KW   Human; BRCA1; wild type; mutant; detection; primer; probe; cancer;
KW   breast cancer susceptibility gene; identification; variation;
KW   hybridisation; breast cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
```

XX
PN WO9929903-A2.
XX
PD 17-JUN-1999.
XX
PF 07-DEC-1998; 98WO-US25916.
XX
PR 11-DEC-1997; 97US-0988706.
XX
PA (GENE-) GENE LOGIC.
XX
PI Allen AP, Angelly TS, Lawrence T, Lescallett JL;
PI Murphy PD, Olson SJ, Sadzewicz LK, Thurber DB, White MB;
PI Zeng B;
XX
DR WPI; 1999-385623/32.
XX
PT Mutants in BRCA gene associated with cancer
XX
PS Claim 16; Page 64; 118pp; English.
XX
CC The present invention describes fifteen new mutants of the breast cancer
CC susceptibility gene BRCA1 gene, the mutations being located at
CC nucleotides 421-2, 815, 926, 1506, 2034, 2428, 4643, 5053, 5210,
CC 5396+40, 5150, 3904, 3888, 903, and 4164. AAX80235 to AAX80289 represent
CC allele specific oligonucleotides for the mutant and wild type sequences
CC of human BRCA1, and so are capable of identifying the normal or mutant
CC gene by hybridisation. Methods from the present invention may be used
CC for detecting a predisposition to cancer, especially breast cancer.
XX
SQ Sequence 17 BP; 6 A; 3 C; 3 G; 5 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 524 AATTTGAATTTCAGTA 539
||||| | |||||||
Db 17 AATTTGCAGTTCAGTA 2

RESULT 518
AAV90992/c
ID AAV90992 standard; RNA; 17 BP.
XX
AC AAV90992;
XX
DT 18-FEB-1999 (first entry)
XX
DE Human C-raf target site nucleotide position 513.
XX
KW Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW target; substrate; catalyst; modulation; expression; Raf gene;
KW delivery; screening; identification; synthesis; deprotection;
KW purification; cancer; inflammation; psoriasis; non-hepatic ascites;
KW infection; genetic drift; restenosis; rheumatoid arthritis; ss.
XX
OS Homo sapiens.
XX
PN WO9850530-A2.
XX
PD 12-NOV-1998.
XX
PF 05-MAY-1998; 98WO-US09249.
XX
PR 19-DEC-1997; 97US-0068212.
PR 09-MAY-1997; 97US-0046059.
PR 09-JUN-1997; 97US-0049002.
PR 03-JUL-1997; 97US-0051718.
PR 22-AUG-1997; 97US-0056808.
PR 02-OCT-1997; 97US-0061321.
PR 02-OCT-1997; 97US-0061324.
PR 05-NOV-1997; 97US-0064866.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Beaudry A, Beigelman L, Bellon L, Burgin A, Jarvis T;
PI Karpeisky A, Kisich K, Matulic-Adamic J, McSwiggen JA;
PI Parry T, Reynolds M, Sweedler D, Thompson J, Workman CT;
XX
DR WPI; 1999-009494/01.
XX
PT Identifying new catalytic nucleic acid that modulates selected
PT processes - especially ribozymes that cleave Raf RNA for treating
PT cancer, restenosis, and also new ribozymes and modified nucleoside
PT triphosphates used as antiviral agents and synthons
XX
PS Claim 177; Page 147; 259pp; English.
XX
CC A method has been developed for the identification of a nucleic acid
CC capable of modulating a process in a biological system. The method
CC comprises: (a) introducing into the system a random library of nucleic
CC acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC in systems where modulation has occurred and/or determining the sequence
CC of at least part of the SBDs in such systems. Nucleic acid molecules
CC with endonuclease activity and catalytic activity, from the present
CC invention, are used to modulate gene expression in plant and mammalian
CC cells and to cleave target nucleic acid, particularly for treating
CC systemic diseases caused by specific RNA, e.g. cancer, inflammation,
CC psoriasis, non-hepatic ascites and infection. They may also be used to
CC detect genetic drift and mutations in diseased cells and to determine
CC c-raf RNA. Specifically NACs with RNA-cleaving activity that modulate
CC expression of the Raf gene, are used to treat cancer, restenosis,
CC psoriasis or rheumatoid arthritis, or generally any condition associated
CC with the level of c-raf. Introduction of sugar/phosphate modifications
CC increases stability against nuclease and activity. AAV90922 to AAV93877
CC represent NACs that can be used in the method, specifically for
CC modulating the expression of a Raf gene.
XX
SQ Sequence 17 BP; 4 A; 4 C; 2 G; 7 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 446 AGCAAATCTACTTCAA 461
|| |||||||||| ||
Db 17 AGGAAATCTACTTGAA 2

RESULT 519
AAV90993/c
ID AAV90993 standard; RNA; 17 BP.
XX
AC AAV90993;
XX
DT 18-FEB-1999 (first entry)
XX
DE Human C-raf target site nucleotide position 517.
XX
KW Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW target; substrate; catalyst; modulation; expression; Raf gene;
KW delivery; screening; identification; synthesis; deprotection;
KW purification; cancer; inflammation; psoriasis; non-hepatic ascites;
KW infection; genetic drift; restenosis; rheumatoid arthritis; ss.
XX
OS Homo sapiens.
XX
PN WO9850530-A2.
XX
PD 12-NOV-1998.
XX
PF 05-MAY-1998; 98WO-US09249.
XX
PR 19-DEC-1997; 97US-0068212.

```
PR   09-MAY-1997;   97US-0046059.
PR   09-JUN-1997;   97US-0049002.
PR   03-JUL-1997;   97US-0051718.
PR   22-AUG-1997;   97US-0056808.
PR   02-OCT-1997;   97US-0061321.
PR   02-OCT-1997;   97US-0061324.
PR   05-NOV-1997;   97US-0064866.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Beaudry A,  Beigelman L,  Bellon L,  Burgin A,  Jarvis T;
PI   Karpeisky A,  Kisich K,  Matulic-Adamic J,  McSwiggen JA;
PI   Parry T,  Reynolds M,  Sweedler D,  Thompson J,  Workman CT;
XX
DR   WPI; 1999-009494/01.
XX
PT   Identifying new catalytic nucleic acid that modulates selected
PT   processes - especially ribozymes that cleave Raf RNA for treating
PT   cancer, restenosis, and also new ribozymes and modified nucleoside
PT   triphosphates used as antiviral agents and synthons
XX
PS   Claim 177; Page 147; 259pp; English.
XX
CC   A method has been developed for the identification of a nucleic acid
CC   capable of modulating a process in a biological system. The method
CC   comprises: (a) introducing into the system a random library of nucleic
CC   acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC   a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC   in systems where modulation has occurred and/or determining the sequence
CC   of at least part of the SBDs in such systems. Nucleic acid molecules
CC   with endonuclease activity and catalytic activity, from the present
CC   invention, are used to modulate gene expression in plant and mammalian
CC   cells and to cleave target nucleic acid, particularly for treating
CC   systemic diseases caused by specific RNA, e.g. cancer, inflammation,
CC   psoriasis, non-hepatic ascites and infection. They may also be used to
CC   detect genetic drift and mutations in diseased cells and to determine
CC   c-raf RNA. Specifically NACs with RNA-cleaving activity that modulate
CC   expression of the Raf gene, are used to treat cancer, restenosis,
CC   psoriasis or rheumatoid arthritis, or generally any condition associated
CC   with the level of c-raf. Introduction of sugar/phosphate modifications
CC   increases stability against nuclease and activity. AAV90922 to AAV93877
CC   represent NACs that can be used in the method, specifically for
CC   modulating the expression of a Raf gene.
XX
SQ   Sequence 17 BP; 5 A; 2 C; 4 G; 6 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        443 TCAAGCAAATCTACTT 458
              || || ||||||||||
Db         16 TCCAGGAAATCTACTT 1


RESULT 520
AAF02465/c
ID   AAF02465 standard; DNA; 17 BP.
XX
AC   AAF02465;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #760.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 73; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRP-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 2 A; 2 C; 3 G; 10 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1205 TTAAACAAACAAACAA 1220
              | |||||||||||| |
Db         16 TGAAACAAACAAACGA 1


RESULT 521
AAF03322
ID   AAF03322 standard; DNA; 17 BP.
XX
AC   AAF03322;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1617.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 92; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
```

```
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 6 A; 0 C; 2 G; 9 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1144 TTATTTTATTTTAGAT 1159
              ||||| ||||| ||||
Db          2 TTATTATATTTGAGAT 17


RESULT 522
AAF03358
ID   AAF03358 standard; DNA; 17 BP.
XX
AC   AAF03358;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #1653.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 37; Page 93; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 1 A; 4 C; 1 G; 11 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        985 CTTTAAGTTTTTTCAT 1000
              |||| |||||||||  |
Db          1 CTTTCAGTTTTTTCCT 16


RESULT 523
AAF04587
ID   AAF04587 standard; DNA; 17 BP.
XX
AC   AAF04587;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #2103.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 4; Page 104; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 10 A; 2 C; 2 G; 3 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1598 AAGTAAATATGAAACA 1613
              || | ||||||||||
Db          1 AAATGAATATGAAACA 16


RESULT 524
AAF04941/c
ID   AAF04941 standard; DNA; 17 BP.
XX
AC   AAF04941;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #2457.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
```

PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 4; Page 111; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 10 A; 2 C; 0 G; 5 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1143 TTTATTTTATTTTAGA 1158
|||| |||||| ||||
Db 16 TTTAATTTATTGTAGA 1

RESULT 525
AAF05463
ID AAF05463 standard; DNA; 17 BP.
XX
AC AAF05463;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #2682.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 18; Page 117; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 7 A; 2 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1510 AAATACAAGGCTTTAT 1525
|||||| || ||||||
Db 2 AAATACTAGTCTTTAT 17

RESULT 526
AAF05510
ID AAF05510 standard; DNA; 17 BP.
XX
AC AAF05510;
XX
DT 16-FEB-2001 (first entry)
XX
DE Hammerhead ribozyme substrate #2729.
XX
KW Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW interferon alpha; ss.
XX
OS Homo sapiens.
XX
PN WO200061729-A2.
XX
PD 19-OCT-2000.
XX
PF 11-APR-2000; 2000WO-US09721.
XX
PR 12-APR-1999; 99US-0129390.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Blatt L, Zwick M, Pavco P, McSwiggen J;
XX
DR WPI; 2000-647423/62.
XX
PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT useful for producing e.g. granulocyte colony stimulating factor
PT protein, interferon alpha and erythropoietin -
XX
PS Claim 18; Page 118; 164pp; English.
XX
CC The present invention relates to enzymatic and antisense nucleic acid
CC molecules that act as inhibitors of the expression of repressor genes
CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC transcription factor gene, IRF-2 and/or the CAATT Displacement
CC Protein (CDP). Inhibition of the repressors removes prevents
CC inhibition (and consequently increases expression of) genes involved in
CC the production of erythropoietin, granulocyte colony stimulating factor
CC protein and interferon alpha.
XX
SQ Sequence 17 BP; 1 A; 1 C; 3 G; 12 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 829 TGGATTTTTTTCTGTT 844
|| |||||||||||| |
Db 2 TGTATTTTTTTCTGGT 17

```
RESULT 527
AAF05511
ID   AAF05511 standard; DNA; 17 BP.
XX
AC   AAF05511;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #2730.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 18; Page 118; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 1 A; 1 C; 3 G; 12 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        829 TGGATTTTTTTCTGTT 844
              || |||||||||| |
Db          1 TGTATTTTTTTCTGGT 16


RESULT 528
AAF06334
ID   AAF06334 standard; DNA; 17 BP.
XX
AC   AAF06334;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3131.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 42; Page 127; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 7 A; 0 C; 1 G; 9 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   43.8%;  Pred. No. 4.3e+02;
  Matches    7;  Conservative    7;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1616 TAAAATATAATTTGTT 1631
              :|||:|:||::  ::
Db          1 UAAAAUAUAAUUGUUU 16


RESULT 529
AAF06336/c
ID   AAF06336 standard; DNA; 17 BP.
XX
AC   AAF06336;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3133.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 42; Page 127; 164pp; English.
```

```
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRP-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 4 A; 1 C; 1 G; 11 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1248 AGATAAACAACAAATA 1263
              ||||||| ||||| ||
Db         17 AGATAAAAAACAATTA 2


RESULT 530
AAF06337/c
ID   AAF06337 standard; DNA; 17 BP.
XX
AC   AAF06337;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3134.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 42; Page 127; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRP-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 3 A; 1 C; 1 G; 12 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1248 AGATAAACAACAAATA 1263
              ||||||| ||||| ||
Db         16 AGATAAAAAACAATTA 1


RESULT 531
AAF06352
ID   AAF06352 standard; DNA; 17 BP.
XX
AC   AAF06352;
XX
DT   16-FEB-2001  (first entry)
XX
DE   Hammerhead ribozyme substrate #3149.
XX
KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
KW   interferon alpha; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061729-A2.
XX
PD   19-OCT-2000.
XX
PF   11-APR-2000; 2000WO-US09721.
XX
PR   12-APR-1999;   99US-0129390.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
XX
DR   WPI; 2000-647423/62.
XX
PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
PT   useful for producing e.g. granulocyte colony stimulating factor
PT   protein, interferon alpha and erythropoietin -
XX
PS   Claim 42; Page 128; 164pp; English.
XX
CC   The present invention relates to enzymatic and antisense nucleic acid
CC   molecules that act as inhibitors of the expression of repressor genes
CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
CC   transcription factor gene, IRP-2 and/or the CAATT Displacement
CC   Protein (CDP). Inhibition of the repressors removes prevents
CC   inhibition (and consequently increases expression of) genes involved in
CC   the production of erythropoietin, granulocyte colony stimulating factor
CC   protein and interferon alpha.
XX
SQ   Sequence 17 BP; 6 A; 0 C; 1 G; 10 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   37.5%;  Pred. No. 4.3e+02;
  Matches    6;  Conservative    8;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1527 TTTTTAACTTTAAGAT 1542
              ::: :|| :::||||:
Db          1 UUUAUAAUUUUAAGAU 16


RESULT 532
AAA86571/c
ID   AAA86571 standard; DNA; 17 BP.
XX
AC   AAA86571;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Cdc 2 kinase hammerhead ribozyme recognitoin site #2.
XX
KW   Ribozyme; hairpin; hammerhead; gene therapy; vasotropic;
KW   restenosis; ss.
XX
OS   Mammalia.
XX
```

PN WO200032765-A2.
XX
PD 08-JUN-2000.
XX
PF 06-DEC-1999; 99WO-US28772.
XX
PR 04-DEC-1998; 98US-0110954.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Tritz R, Welch PJ, Barber JR, Robbins JM;
XX
DR WPI; 2000-412314/35.
XX
PT New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves
PT RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1,
PT PCNA and Cyclin B1 -
XX
PS Example 1; Page 17; 109pp; English.
XX
CC The present invention relates to a hairpin or hammerhead ribozyme,
CC designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase
CC other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
CC Representative examples of ribozyme recognition sites are given in
CC AAA82415 to AAA86787. The ribozyme of the invention is useful for
CC inhibiting restenosis by introduction of the ribozyme into cells.
CC The ribozyme is resistant to endonuclease activity and hence is
CC efficient in restenosis treatment.
XX
SQ Sequence 17 BP; 7 A; 2 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1172 TTTATTAGATAAATTT 1187
|||| |||| ||||||
Db 16 TTTAATAGAGAAATTT 1

RESULT 533
AAA25179
ID AAA25179 standard; DNA; 17 BP.
XX
AC AAA25179;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1677.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target
PT sequences, used to treat cancer -
XX
PS Claim 77; Page 71; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any
CC catalytic nucleic acid (A') that modulates expression of the oestrogen
CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1046 ATTTATGTATTTATTT 1061
|||| ||| |||||||
Db 1 ATTTTTGTTTTTATTT 16

RESULT 534
AAA25363
ID AAA25363 standard; DNA; 17 BP.
XX
AC AAA25363;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1861.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target

```
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 76; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
CC   receptor gene, are used to treat cancer (particularly of breast or
CC   endometrium), in vivo or by transforming cells ex vivo and implanting
CC   treated cells, or for other conditions associated with levels of
CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC   can also be used to correlate inhibition of gene expression with
CC   alterations in phenotype, particularly for identification of therapeutic
CC   targets, and as research reagents (for RNA, in the  same way that
CC   restriction endonucleases are used with DNA). The combination of
CC   modifications in (A) improves resistance to nucleases, binding affinity
CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC   their corresponding target sequences. AAA26219 to AAA26271 represent
CC   other ribozyme sequences and antisense oligonucleotides used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 17 BP; 7 A; 0 C; 3 G; 7 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1538 AAGATGTTTTTATGTG 1553
              || | ||||||||||||
Db          2 AAAAAGTTTTTATGTG 17


RESULT 535
AAA25365
ID   AAA25365 standard; DNA; 17 BP.
XX
AC   AAA25365;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1863.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US08547.
XX
PR   20-APR-1998;   98US-0082404.
PR   23-JUN-1998;   98US-0103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 77; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
CC   receptor gene, are used to treat cancer (particularly of breast or
CC   endometrium), in vivo or by transforming cells ex vivo and implanting
CC   treated cells, or for other conditions associated with levels of
CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC   can also be used to correlate inhibition of gene expression with
CC   alterations in phenotype, particularly for identification of therapeutic
CC   targets, and as research reagents (for RNA, in the  same way that
CC   restriction endonucleases are used with DNA). The combination of
CC   modifications in (A) improves resistance to nucleases, binding affinity
CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC   their corresponding target sequences. AAA26219 to AAA26271 represent
CC   other ribozyme sequences and antisense oligonucleotides used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 17 BP; 6 A; 1 C; 3 G; 7 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1539 AGATGTTTTTATGTGC 1554
              | | ||||||||||||
Db          1 AAAAGTTTTTATGTGC 16


RESULT 536
AAA25366
ID   AAA25366 standard; DNA; 17 BP.
XX
AC   AAA25366;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1864.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US08547.
XX
PR   20-APR-1998;   98US-0082404.
PR   23-JUN-1998;   98US-0103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 77; 148pp; English.
XX
```

```
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
CC   receptor gene, are used to treat cancer (particularly of breast or
CC   endometrium), in vivo or by transforming cells ex vivo and implanting
CC   treated cells, or for other conditions associated with levels of
CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC   can also be used to correlate inhibition of gene expression with
CC   alterations in phenotype, particularly for identification of therapeutic
CC   targets, and as research reagents (for RNA, in the  same way that
CC   restriction endonucleases are used with DNA). The combination of
CC   modifications in (A) improves resistance to nucleases, binding affinity
CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC   their corresponding target sequences. AAA26219 to AAA26271 represent
CC   other ribozyme sequences and antisense oligonucleotides used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 17 BP; 5 A; 2 C; 3 G; 7 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1541 ATGTTTTTATGTGCTC 1556
                | ||||||||||||  |
Db          2 AAGTTTTTATGTGCAC 17


RESULT 537
AAA25453/c
ID   AAA25453 standard; DNA; 17 BP.
XX
AC   AAA25453;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1951.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US08547.
XX
PR   20-APR-1998;   98US-0082404.
PR   23-JUN-1998;   98US-0103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
CC   receptor gene, are used to treat cancer (particularly of breast or
CC   endometrium), in vivo or by transforming cells ex vivo and implanting
CC   treated cells, or for other conditions associated with levels of
CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC   can also be used to correlate inhibition of gene expression with
CC   alterations in phenotype, particularly for identification of therapeutic
CC   targets, and as research reagents (for RNA, in the  same way that
CC   restriction endonucleases are used with DNA). The combination of
CC   modifications in (A) improves resistance to nucleases, binding affinity
CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC   their corresponding target sequences. AAA26219 to AAA26271 represent
CC   other ribozyme sequences and antisense oligonucleotides used in the
CC   exemplification of the present invention.
XX
SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        615 TACAAAAAACAACAAA 630
              |||||||| || |||
Db         17 TACAAAAAAAAAAAAA 2


RESULT 538
AAA25454/c
ID   AAA25454 standard; DNA; 17 BP.
XX
AC   AAA25454;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1952.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US08547.
XX
PR   20-APR-1998;   98US-0082404.
PR   23-JUN-1998;   98US-0103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target
PT   sequences, used to treat cancer  -
XX
PS   Claim 77; Page 79; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any
CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
```

CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 615 TACAAAAAACAACAAA 630
||||||||| || |||
Db 16 TACAAAAAAAAAAAAA 1

RESULT 539
AAA25487/c
ID AAA25487 standard; DNA; 17 BP.
XX
AC AAA25487;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1985.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target
PT sequences, used to treat cancer -
XX
PS Claim 77; Page 80; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any
CC catalytic nucleic acid (A') that modulates expression of the oestrogen
CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 4 A; 3 C; 1 G; 9 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1596 AAAAGTAAATATGAAA 1611
|||||| ||||||||
Db 16 AAAAGTTGATATGAAA 1

RESULT 540
AAA25991/c
ID AAA25991 standard; DNA; 17 BP.
XX
AC AAA25991;
XX
DT 19-JUL-2000 (first entry)
XX
DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2489.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US08547.
XX
PR 20-APR-1998; 98US-0082404.
PR 23-JUN-1998; 98US-0103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target
PT sequences, used to treat cancer -
XX
PS Claim 77; Page 97; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any
CC catalytic nucleic acid (A') that modulates expression of the oestrogen
CC receptor gene, are used to treat cancer (particularly of breast or
CC endometrium), in vivo or by transforming cells ex vivo and implanting
CC treated cells, or for other conditions associated with levels of
CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)

CC can also be used to correlate inhibition of gene expression with
CC alterations in phenotype, particularly for identification of therapeutic
CC targets, and as research reagents (for RNA, in the same way that
CC restriction endonucleases are used with DNA). The combination of
CC modifications in (A) improves resistance to nucleases, binding affinity
CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
CC their corresponding target sequences. AAA26219 to AAA26271 represent
CC other ribozyme sequences and antisense oligonucleotides used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 7 A; 1 C; 3 G; 6 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1055 TTTATTTAAGCATCAA 1070
||||||| | ||||||
Db 16 TTTATTTGAACATCAA 1

RESULT 541
ABA77913/c
ID ABA77913 standard; DNA; 17 BP.
XX
AC ABA77913;
XX
DT 24-JAN-2002 (first entry)
XX
DE BRCA1 mutation correcting oligonucleotide SEQ ID NO: 759.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX
PN WO200173002-A2.
XX
PD 04-OCT-2001.
XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 90; 294pp; English.
XX
CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the
CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 6 A; 2 C; 3 G; 6 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 524 AATTTGAATTTCAGTA 539
|||||| | |||||||
Db 16 AATTTGCAATTCAGTA 1

RESULT 542
ABA77914
ID ABA77914 standard; DNA; 17 BP.
XX
AC ABA77914;
XX
DT 24-JAN-2002 (first entry)
XX
DE BRCA1 mutation correcting oligonucleotide SEQ ID NO: 760.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX
PN WO200173002-A2.
XX
PD 04-OCT-2001.
XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 90; 294pp; English.
XX
CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the

CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 6 A; 3 C; 2 G; 6 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy        524 AATTTGAATTTCAGTA 539
              ||||||  | |||||||
Db          2 AATTTGCAATTCAGTA 17
```

RESULT 543
ABA78613/c
ID ABA78613 standard; DNA; 17 BP.
XX
AC ABA78613;
XX
DT 24-JAN-2002 (first entry)
XX
DE APC mutation correcting oligonucleotide SEQ ID NO: 1459.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX
PN WO200173002-A2.
XX
PD 04-OCT-2001.
XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 133; 294pp; English.
XX
CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the
CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 6 A; 4 C; 1 G; 6 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       1577 TCTGATTGTATGGAAA 1592
              |||| ||||| ||||
Db         16 TCTGTTTGTAAGGAAA 1
```

RESULT 544
ABA78614
ID ABA78614 standard; DNA; 17 BP.
XX
AC ABA78614;
XX
DT 24-JAN-2002 (first entry)
XX
DE APC mutation correcting oligonucleotide SEQ ID NO: 1460.
XX
KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
KW antilipemic; ss.
XX
OS Homo sapiens.
XX
PN WO200173002-A2.
XX
PD 04-OCT-2001.
XX
PF 27-MAR-2001; 2001WO-US09761.
XX
PR 27-MAR-2000; 2000US-192176P.
PR 27-MAR-2000; 2000US-192179P.
PR 01-JUN-2000; 2000US-208538P.
PR 30-OCT-2000; 2000US-244989P.
XX
PA (UYDE) UNIV DELAWARE.
XX
PI Kmiec EB, Gamper HB, Rice MC;
XX
DR WPI; 2001-639230/73.
XX
PT Oligonucleotide for targeted alterations of genetic sequences and for
PT treating cystic fibrosis, comprises at least one mismatch and chemical
PT modification -
XX
PS Claim 7; Page 133; 294pp; English.
XX

CC The present invention provides single-stranded oligonucleotides which can
CC be used for the targeted alteration of genomic sequences, where the
CC oligonucleotide has at least one mismatch compared with the genomic
CC sequence to be altered. In particular, these sequences are directed at
CC the following genes: adenosine deaminase, p53, beta-globin,
CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
CC various syndromes. The present sequence is one of the gene correcting
CC oligonucleotides of the invention.
XX
SQ Sequence 17 BP; 6 A; 1 C; 4 G; 6 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1577 TCTGATTGTATGGAAA 1592
|||| ||||| |||||
Db 2 TCTGTTTGTAAGGAAA 17

RESULT 545
AAH61737/c
ID AAH61737 standard; DNA; 17 BP.
XX
AC AAH61737;
XX
DT 10-SEP-2001 (first entry)
XX
DE Cdc 2 kinase hammerhead ribozyme recognition site SEQ ID NO:4161.
XX
KW Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
KW recognition site; target; ribozyme binding site; eye disease; vulnerary;
KW proliferative disease; skin disease; psoriasis; diabetic retinopathy;
KW cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP;
KW matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
KW antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide;
KW antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
KW atopic dermatitis; actinic keratosis; squamous cell carcinoma;
KW basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
KW sickle cell retinopathy; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200130362-A2.
XX
PD 03-MAY-2001.
XX
PF 26-OCT-2000; 2000WO-US29500.
XX
PR 26-OCT-1999; 99US-0161532.
XX
PA (IMMU-) IMMUSOL INC.
XX
PI Robbins JM, Tritz R;
XX
DR WPI; 2001-300427/31.
XX
PT Treating proliferative skin or eye diseases and scarring, using
PT ribozymes that cleave RNA encoding cytokines involved in inflammation,
PT matrix metalloproteinases, growth factors and cell-cycle dependent
PT kinases -
XX
PS Disclosure; Page 375; 408pp; English.
XX
CC The present invention describes a method for treating a proliferative
CC skin or eye disease and scarring. The method involves administering a
CC ribozyme (I) which cleaves RNA encoding a cytokine involved in
CC inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle
CC dependent kinase, growth factor or a reductase, or administering a
CC nucleic acid molecule (II) comprising a promoter operably linked to a
CC nucleic acid segment encoding (I). (I) can have antipsoriatic,
CC dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling,
CC ophthalmological, vulnerary, keratolytic and virucide activities, and
CC cleaves RNA encoding cytokine involved in inflammation. (I) can be used
CC in gene therapy. (I) and (II) are useful for treating proliferative
CC skin diseases such as psoriasis, atopic dermatitis, actinic keratosis,
CC squamous or basal cell carcinoma and viral or seborrheic wart. They can
CC also be used for treating proliferative eye diseases such as diabetic
CC retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of
CC prematurity and retinal detachment, and for treating and preventing
CC scarring such as keloid, adhesion and hypertrophic or hypertrophic burn
CC scar. AAH57577 to AAH62099 represent sequences used in the
CC exemplification of the present invention.
XX
SQ Sequence 17 BP; 7 A; 2 C; 1 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1172 TTTATTAGATAAATTT 1187
|||| |||| ||||||
Db 16 TTTAATAGAGAAATTT 1

RESULT 546
AAF56150/c
ID AAF56150 standard; DNA; 17 BP.
XX
AC AAF56150;
XX
DT 17-APR-2001 (first entry)
XX
DE Staphylococcus aureus agr regulatory region footprinted region B2.
XX
KW Staphylococcus aureus; SarA; staphylococcal accessory regulator A;
KW agr; accessory gene regulator; antibacterial; SarA inhibitor;
KW virulence gene; staphylococcal infection; DNA footprinting; ds.
XX
OS Staphylococcus aureus.
XX
PN WO200103686-A2.
XX
PD 18-JAN-2001.
XX
PF 07-JUL-2000; 2000WO-US18525.
XX
PR 08-JUL-1999; 99US-0142793.
XX
PA (UYAR-) UNIV ARKANSAS.
XX
PI Hurlburt BK, Smeltzer MS, Rechtin TM;
XX
DR WPI; 2001-112567/12.
XX
PT Identifying inhibitors of staphylococcal SarA (accessory regulator)
PT which are useful for treating staphylococcal infections, comprises
PT using specific binding sites of SarA protein on an accessory gene
PT regulator locus -
XX
PS Example; Fig 6B; 79pp; English.
XX
CC The present sequence is given in a specification relating to a method for
CC identifying inhibitors of SarA (staphylococcal accessory regulator)
CC function involved in the expression of Staphylococcal virulence genes.
CC The method comprises contacting a candidate inhibitor with a SarA
CC binding site of the agr (accessory gene regulator) locus in solution

```
CC   and assessing the binding of the candidate inhibitor to the SarA
CC   binding site of the agr locus. The identified inhibitors are useful for
CC   preventing and treating staphylococcal infections.
XX
SQ   Sequence 17 BP; 9 A; 2 C; 1 G; 5 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1046 ATTTATGTATTTATTT 1061
              | ||| ||||||||||
Db         17 AGTTAAGTATTTATTT 2


RESULT 547
ABK00430
ID   ABK00430 standard; RNA; 17 BP.
XX
AC   ABK00430;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Hammerhead Ribozyme #430.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04273.
XX
PR   11-FEB-2000; 2000US-181797P.
PR   28-FEB-2000; 2000US-185516P.
PR   06-MAR-2000; 2000US-187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  McSwiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
PT   and central nervous system injury  -
XX
PS   Claim 88; Page 72; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO).
CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
CC   to cleave RNA of CD20 in the presence of a divalent cation that is
CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
CC   CD20 activity of the cell and treat a patient having a condition
CC   associated with the level of CD20. The treatment may further comprise the
CC   use of one or more therapies. In particular, the CD20 targetting
CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
CC   may be contacted with a cell to reduce NOGO activity of the cell and
CC   treat a patient having a condition associated with the level of NOGO. The
CC   treatment may further comprise the use of one or more therapies.
CC   In particular, the NOGO-targetting nucleic acid may be used to treat
CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The
CC   present sequence is a hammerhead ribozyme of the invention.
XX
SQ   Sequence 17 BP; 5 A; 2 C; 1 G; 9 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   37.5%;  Pred. No. 4.3e+02;
  Matches    6;  Conservative    8;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        909 CTCCTTTATTTCTAAG 924
              |:  :::|:::|:|||
Db          2 CUUAUUUAUUUCUAAG 17


RESULT 548
ABK00457/c
ID   ABK00457 standard; RNA; 17 BP.
XX
AC   ABK00457;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Hammerhead Ribozyme #457.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04273.
XX
PR   11-FEB-2000; 2000US-181797P.
PR   28-FEB-2000; 2000US-185516P.
PR   06-MAR-2000; 2000US-187128P.
```

```
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  McSwiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
PT   and central nervous system injury  -
XX
PS   Claim 88; Page 73; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO).
CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
CC   to cleave RNA of CD20 in the presence of a divalent cation that is
CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
CC   CD20 activity of the cell and treat a patient having a condition
CC   associated with the level of CD20. The treatment may further comprise the
CC   use of one or more therapies. In particular, the CD20 targetting
CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
CC   may be contacted with a cell to reduce NOGO activity of the cell and
CC   treat a patient having a condition associated with the level of NOGO. The
CC   treatment may further comprise the use of one or more therapies.
CC   In particular, the NOGO-targetting nucleic acid may be used to treat
CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The
CC   present sequence is a hammerhead ribozyme of the invention.
XX
SQ   Sequence 17 BP; 5 A; 3 C; 1 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1096 TAGAAGATGAATCATT 1111
              ||||| |||||||| |
Db         17 TAGAAAATGAATCAGT 2


RESULT 549
ABK01316/c
ID   ABK01316 standard; RNA; 17 BP.
XX
AC   ABK01316;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO Inozyme #586.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04273.
XX
PR   11-FEB-2000; 2000US-181797P.
PR   28-FEB-2000; 2000US-185516P.
PR   06-MAR-2000; 2000US-187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  McSwiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
PT   and central nervous system injury  -
XX
PS   Claim 88; Page 87; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO).
CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
CC   to cleave RNA of CD20 in the presence of a divalent cation that is
CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
CC   CD20 activity of the cell and treat a patient having a condition
CC   associated with the level of CD20. The treatment may further comprise the
CC   use of one or more therapies. In particular, the CD20 targetting
CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
CC   may be contacted with a cell to reduce NOGO activity of the cell and
CC   treat a patient having a condition associated with the level of NOGO. The
CC   treatment may further comprise the use of one or more therapies.
CC   In particular, the NOGO-targetting nucleic acid may be used to treat
CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The
CC   present sequence is an inozyme of the invention.
XX
```

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SQ   Sequence 17 BP; 5 A; 3 C; 1 G; 8 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1096 TAGAAGATGAATCATT 1111
              ||||| |||||||||  |
Db         16 TAGAAAATGAATCAGT 1


RESULT 550
ABK01612
ID   ABK01612 standard; RNA; 17 BP.
XX
AC   ABK01612;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO G-Cleaver #68.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04273.
XX
PR   11-FEB-2000; 2000US-181797P.
PR   28-FEB-2000; 2000US-185516P.
PR   06-MAR-2000; 2000US-187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (CHOW/) CHOWRIRA B M.
XX
PI   Blatt L,  McSwiggen J,  Chowrira BM;
XX
DR   WPI; 2001-607195/69.
XX
PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT   constructs, which down regulate expression of a CD20 gene or neurite
PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
PT   and central nervous system injury  -
XX
PS   Claim 88; Page 93; 200pp; English.
XX
CC   The invention relates to a nucleic acid molecule which down regulates
CC   expression of a CD20 gene and a nucleic acid molecule which down
CC   regulates expression of a neurite growth inhibitor gene (NOGO).
CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
CC   to cleave RNA of CD20 in the presence of a divalent cation that is
CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
CC   CD20 activity of the cell and treat a patient having a condition
CC   associated with the level of CD20. The treatment may further comprise the
CC   use of one or more therapies. In particular, the CD20 targetting
CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
CC   may be contacted with a cell to reduce NOGO activity of the cell and
CC   treat a patient having a condition associated with the level of NOGO. The
CC   treatment may further comprise the use of one or more therapies.
CC   In particular, the NOGO-targetting nucleic acid may be used to treat
CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC   disease, muscular dystrophy, and/or other neurodegenerative disease
CC   states which respond to the modulation of NOGO expression. The
CC   present sequence is a G-cleaver molecule of the invention.
XX
SQ   Sequence 17 BP; 4 A; 3 C; 4 G; 6 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   62.5%;  Pred. No. 4.3e+02;
  Matches   10;  Conservative    4;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       429 ATGCCAGTGAAACTTC 444
             |:| |||:||| |::|
Db         1 AUGUCAGUGAAGCUUC 16


RESULT 551
ABK02193/c
ID   ABK02193 standard; RNA; 17 BP.
XX
AC   ABK02193;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human NOGO DNAzyme #105.
XX
KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
KW   inflammatory arthropathy; central nervous system injury;
KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
KW   Parkinson's disease; ataxia; Huntington's disease;
KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200159103-A2.
XX
PD   16-AUG-2001.
XX
PF   09-FEB-2001; 2001WO-US04273.
XX
PR   11-FEB-2000; 2000US-181797P.
PR   28-FEB-2000; 2000US-185516P.
PR   06-MAR-2000; 2000US-187128P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
```

PA (CHOW/) CHOWRIRA B M.
XX
PI Blatt L, McSwiggen J, Chowrira BM;
XX
DR WPI; 2001-607195/69.
XX
PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
PT constructs, which down regulate expression of a CD20 gene or neurite
PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
PT and central nervous system injury -
XX
PS Claim 88; Page 114; 200pp; English.
XX
CC The invention relates to a nucleic acid molecule which down regulates
CC expression of a CD20 gene and a nucleic acid molecule which down
CC regulates expression of a neurite growth inhibitor gene (NOGO).
CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
CC motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
CC to cleave RNA of CD20 in the presence of a divalent cation that is
CC preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
CC CD20 activity of the cell and treat a patient having a condition
CC associated with the level of CD20. The treatment may further comprise the
CC use of one or more therapies. In particular, the CD20 targetting
CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
CC may be contacted with a cell to reduce NOGO activity of the cell and
CC treat a patient having a condition associated with the level of NOGO. The
CC treatment may further comprise the use of one or more therapies.
CC In particular, the NOGO-targetting nucleic acid may be used to treat
CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
CC disease, muscular dystrophy, and/or other neurodegenerative disease
CC states which respond to the modulation of NOGO expression. The
CC present sequence is a DNAzyme molecule of the invention.
XX
SQ Sequence 17 BP; 9 A; 2 C; 3 G; 3 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1276 AAGTACATTATTGTTT 1291
|||| |||| ||||||
Db 16 AAGTCCATTTTTGTTT 1

RESULT 552
ABV80683/c
ID ABV80683 standard; DNA; 17 BP.
XX
AC ABV80683;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 1929.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;
KW male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS Homo sapiens.
XX
PN EP1229046-A2.
XX
PD 07-AUG-2002.
XX
PF 28-JAN-2002; 2002EP-0001167.
XX
PR 30-JAN-2001; 2001WO-US00663.
PR 30-JAN-2001; 2001WO-US00664.
PR 30-JAN-2001; 2001WO-US00665.
PR 30-JAN-2001; 2001WO-US00667.
PR 30-JAN-2001; 2001WO-US00668.
PR 30-JAN-2001; 2001WO-US00669.
PR 23-MAY-2001; 2001US-0864761.
PR 09-OCT-2001; 2001US-0327898.
XX
PA (AEOM-) AEOMICA INC.
XX
PI Zhan J;
XX
DR WPI; 2002-676582/73.
XX
PT Novel isolated human testis expressed Patched like protein (HTPL),
PT useful for identifying agonist and antagonist and specific binding
PT partners, and for treating subjects having defects in HTPL -
XX
PS Example 2; Page 316; 718pp; English.
XX
CC The present invention relates to human testis expressed Patched like
CC protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC has two isoforms, with a few single base pair differences between the
CC two. One of the single base pair changes introduces a premature stop
CC codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC shares an overall structure organisation with the Patched protein. The
CC shared structural features strongly imply that HTPL plays a role similar
CC to that of Patched, and is a potential tumour suppressor. HTPL is
CC important in regulating male germ cell development, and the HTPL gene was
CC mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC useful for diagnosing a disorder caused by mutation in HTPL, and in
CC therapy and manufacture of a medicament for treatment or prevention of
CC such disorder associated with decreased expression or activity of human
CC HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC clinically useful diagnostic markers and potenial therapeutic agents for
CC male infertility and cancer. The present oligonucleotide was used in an
CC example from the invention.
XX
SQ Sequence 17 BP; 5 A; 3 C; 2 G; 7 T; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1457 GTTTATTATGTACAAA 1472
| |||| ||||||||||
Db 17 GCTTATGATGTACAAA 2

RESULT 553
ABV80685/c
ID ABV80685 standard; DNA; 17 BP.
XX
AC ABV80685;
XX
DT 03-JAN-2003 (first entry)
XX
DE Human HTPL scanning oligonucleotide SEQ ID 1931.
XX
KW Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW human testis expressed Patched like protein; testis; adrenal; liver;
KW male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW prostate; skeletal muscle; colon; male infertility; cancer; ss.

```
XX
OS   Homo sapiens.
XX
PN   EP1229046-A2.
XX
PD   07-AUG-2002.
XX
PF   28-JAN-2002; 2002EP-0001167.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   23-MAY-2001; 2001US-0864761.
PR   09-OCT-2001; 2001US-0327898.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhan J;
XX
DR   WPI; 2002-676582/73.
XX
PT   Novel isolated human testis expressed Patched like protein (HTPL),
PT   useful for identifying agonist and antagonist and specific binding
PT   partners, and for treating subjects having defects in HTPL -
XX
PS   Example 2; Page 317; 718pp; English.
XX
CC   The present invention relates to human testis expressed Patched like
CC   protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC   has two isoforms, with a few single base pair differences between the
CC   two. One of the single base pair changes introduces a premature stop
CC   codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC   shares an overall structure organisation with the Patched protein. The
CC   shared structural features strongly imply that HTPL plays a role similar
CC   to that of Patched, and is a potential tumour suppressor. HTPL is
CC   important in regulating male germ cell development, and the HTPL gene was
CC   mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC   useful for diagnosing a disorder caused by mutation in HTPL, and in
CC   therapy and manufacture of a medicament for treatment or prevention of
CC   such disorder associated with decreased expression or activity of human
CC   HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC   foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC   skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC   clinically useful diagnostic markers and potenial therapeutic agents for
CC   male infertility and cancer. The present oligonucleotide was used in an
CC   example from the invention.
XX
SQ   Sequence 17 BP; 6 A; 3 C; 3 G; 5 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1456 TGTTTATTATGTACAA 1471
              || |||| ||||||||
Db         16 TGCTTATGATGTACAA 1


RESULT 554
ABV83076
ID   ABV83076 standard; DNA; 17 BP.
XX
AC   ABV83076;
XX
DT   03-JAN-2003  (first entry)
XX
DE   Human HTPL scanning oligonucleotide SEQ ID 4322.
XX
KW   Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW   human testis expressed Patched like protein; testis; adrenal; liver;
KW   male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW   prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   EP1229046-A2.
XX
PD   07-AUG-2002.
XX
PF   28-JAN-2002; 2002EP-0001167.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   23-MAY-2001; 2001US-0864761.
PR   09-OCT-2001; 2001US-0327898.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhan J;
XX
DR   WPI; 2002-676582/73.
XX
PT   Novel isolated human testis expressed Patched like protein (HTPL),
PT   useful for identifying agonist and antagonist and specific binding
PT   partners, and for treating subjects having defects in HTPL -
XX
PS   Example 2; Page 630; 718pp; English.
XX
CC   The present invention relates to human testis expressed Patched like
CC   protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC   has two isoforms, with a few single base pair differences between the
CC   two. One of the single base pair changes introduces a premature stop
CC   codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC   shares an overall structure organisation with the Patched protein. The
CC   shared structural features strongly imply that HTPL plays a role similar
CC   to that of Patched, and is a potential tumour suppressor. HTPL is
CC   important in regulating male germ cell development, and the HTPL gene was
CC   mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC   useful for diagnosing a disorder caused by mutation in HTPL, and in
CC   therapy and manufacture of a medicament for treatment or prevention of
CC   such disorder associated with decreased expression or activity of human
CC   HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC   foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC   skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC   clinically useful diagnostic markers and potenial therapeutic agents for
CC   male infertility and cancer. The present oligonucleotide was used in an
CC   example from the invention.
XX
SQ   Sequence 17 BP; 5 A; 2 C; 2 G; 8 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        603 TTTATTTGAATCTACA 618
              |||||||||| | ||
Db          2 TTTATTTGAATATCCA 17


RESULT 555
ABV83077
ID   ABV83077 standard; DNA; 17 BP.
XX
AC   ABV83077;
XX
DT   03-JAN-2003  (first entry)
XX
DE   Human HTPL scanning oligonucleotide SEQ ID 4323.
XX
```

```
KW   Human; gene therapy; tumour suppressor; HTPL; chromosome 10p12.1;
KW   human testis expressed Patched like protein; testis; adrenal; liver;
KW   male germ cell development; bone marrow; brain; kidney; lung; placenta;
KW   prostate; skeletal muscle; colon; male infertility; cancer; ss.
XX
OS   Homo sapiens.
XX
PN   EP1229046-A2.
XX
PD   07-AUG-2002.
XX
PF   28-JAN-2002; 2002EP-0001167.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   23-MAY-2001; 2001US-0864761.
PR   09-OCT-2001; 2001US-0327898.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Zhan J;
XX
DR   WPI; 2002-676582/73.
XX
PT   Novel isolated human testis expressed Patched like protein (HTPL),
PT   useful for identifying agonist and antagonist and specific binding
PT   partners, and for treating subjects having defects in HTPL -
XX
PS   Example 2; Page 630; 718pp; English.
XX
CC   The present invention relates to human testis expressed Patched like
CC   protein (HTPL, see ABV78759 to ABV78762 and ABB98519 to ABB98520). HTPL
CC   has two isoforms, with a few single base pair differences between the
CC   two. One of the single base pair changes introduces a premature stop
CC   codon in HTPL-S (S for short) compared to HTPL-L (L for long). HTPL
CC   shares an overall structure organisation with the Patched protein. The
CC   shared structural features strongly imply that HTPL plays a role similar
CC   to that of Patched, and is a potential tumour suppressor. HTPL is
CC   important in regulating male germ cell development, and the HTPL gene was
CC   mapped to human chromosome 10p12.1. HTPL and its coding sequence are
CC   useful for diagnosing a disorder caused by mutation in HTPL, and in
CC   therapy and manufacture of a medicament for treatment or prevention of
CC   such disorder associated with decreased expression or activity of human
CC   HTPL. Such disorders include disorders of testis, or adrenal, adult and
CC   foetal liver, bone marrow, brain, kidney, lung, placenta, prostate,
CC   skeletal muscle or colon function. HTPL proteins and nucleic acids are
CC   clinically useful diagnostic markers and potenial therapeutic agents for
CC   male infertility and cancer. The present oligonucleotide was used in an
CC   example from the invention.
XX
SQ   Sequence 17 BP; 5 A; 3 C; 1 G; 8 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        603 TTTATTTGAATCTACA 618
              ||||||||||| | ||
Db          1 TTTATTTGAATATCCA 16


RESULT 556
ABV90149/c
ID   ABV90149 standard; DNA; 17 BP.
XX
AC   ABV90149;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Human POSHL1 scanning oligonucleotide SEQ ID NO 862.
XX
KW   Human; POSHL 1; SH3 domain; POSH-like signalling protein 1; oncogene;
KW   Rho GTPase; signal transduction; gene expression; cancer; vaccine;
KW   gene therapy; transgenic; ss.
XX
OS   Homo sapiens.
XX
PN   EP1239051-A2.
XX
PD   11-SEP-2002.
XX
PF   28-JAN-2002; 2002EP-0001165.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00666.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   30-JAN-2001; 2001WO-US00670.
PR   23-MAY-2001; 2001US-0864761.
PR   10-OCT-2001; 2001US-0328205.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Shannon M;
XX
DR   WPI; 2002-684061/74.
XX
PT   Novel human SH3 domain (POSH)-like signalling protein 1 polypeptide,
PT   POSHL-1, useful for treating disorders associated with decreased
PT   expression or activity of human POSHL1 -
XX
PS   Example 2; SEQ ID NO 862; 60pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated SH3 domain (POSH)-like signalling
CC   protein 1 (POSHL 1) polypeptide (I), comprising a sequence of 730 amino
CC   acids (S1, ABB83999), a sequence having 65% sequence identity to (S1),
CC   (S1) having 95% deviations, especially conservative substitutions or a
CC   fragment of the sequences comprising at least 8 contiguous amino acids.
CC   Human POSHL 1 is a proto-oncogene/oncogene product that functions as an
CC   adaptor protein that interacts with Rho family small GTPases as well as
CC   downstream components of the signal transduction pathway. (I) is useful
CC   for identifying a specific binding partner. (I) and nucleic acids (II)
CC   encoding (I) are useful for diagnosing, monitoring disease and treating
CC   caused by altered expression of human POSHL1 including diagnosing and
CC   treating cancer, they useful in the development of vaccines and (II) is
CC   useful in gene therapy. (II) is useful for constructing microarrays which
CC   are useful for measuring and for surveying gene expression and creating
CC   transgenic non-human animals capable of producing the proteins. The
CC   present sequence is that of a scanning oligonucleotide useful in examples
CC   of the invention.
CC   Note: The present sequence did not form part of the printed
CC   specification, but is based on sequence information supplied to Derwent
CC   by the European Patent Office.
XX
SQ   Sequence 17 BP; 7 A; 2 C; 7 G; 1 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1335 CAGTCTTGTCATTGCC 1350
              || ||||||| |||||
Db         17 CACTCTTGTCCTTGCC 2


RESULT 557
ABV90150/c
ID   ABV90150 standard; DNA; 17 BP.
XX
```

```
AC   ABV90150;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Human POSHL1 scanning oligonucleotide SEQ ID NO 863.
XX
KW   Human; POSHL 1; SH3 domain; POSH-like signalling protein 1; oncogene;
KW   Rho GTPase; signal transduction; gene expression; cancer; vaccine;
KW   gene therapy; transgenic; ss.
XX
OS   Homo sapiens.
XX
PN   EP1239051-A2.
XX
PD   11-SEP-2002.
XX
PF   28-JAN-2002; 2002EP-0001165.
XX
PR   30-JAN-2001; 2001WO-US00663.
PR   30-JAN-2001; 2001WO-US00664.
PR   30-JAN-2001; 2001WO-US00665.
PR   30-JAN-2001; 2001WO-US00666.
PR   30-JAN-2001; 2001WO-US00667.
PR   30-JAN-2001; 2001WO-US00668.
PR   30-JAN-2001; 2001WO-US00669.
PR   30-JAN-2001; 2001WO-US00670.
PR   23-MAY-2001; 2001US-0864761.
PR   10-OCT-2001; 2001US-0328205.
XX
PA   (AEOM-) AEOMICA INC.
XX
PI   Shannon M;
XX
DR   WPI; 2002-684061/74.
XX
PT   Novel human SH3 domain (POSH)-like signalling protein 1 polypeptide,
PT   POSHL-1, useful for treating disorders associated with decreased
PT   expression or activity of human POSHL1 -
XX
PS   Example 2; SEQ ID NO 863; 60pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated SH3 domain (POSH)-like signalling
CC   protein 1 (POSHL 1) polypeptide (I), comprising a sequence of 730 amino
CC   acids (S1, ABB83999), a sequence having 65% sequence identity to (S1),
CC   (S1) having 95% deviations, especially conservative substitutions or a
CC   fragment of the sequences comprising at least 8 contiguous amino acids.
CC   Human POSHL 1 is a proto-oncogene/oncogene product that functions as an
CC   adaptor protein that interacts with Rho family small GTPases as well as
CC   downstream components of the signal transduction pathway. (I) is useful
CC   for identifying a specific binding partner. (I) and nucleic acids (II)
CC   encoding (I) are useful for diagnosing, monitoring disease and treating
CC   caused by altered expression of human POSHL1 including diagnosing and
CC   treating cancer, they useful in the development of vaccines and (II) is
CC   useful in gene therapy. (II) is useful for constructing microarrays which
CC   are useful for measuring and for surveying gene expression and creating
CC   transgenic non-human animals capable of producing the proteins. The
CC   present sequence is that of a scanning oligonucleotide useful in examples
CC   of the invention.
CC   Note: The present sequence did not form part of the printed
CC   specification, but is based on sequence information supplied to Derwent
CC   by the European Patent Office.
XX
SQ   Sequence 17 BP; 7 A; 2 C; 7 G; 1 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1335 CAGTCTTGTCATTGCC 1350
              || ||||||| |||||
Db         16 CACTCTTGTCCTTGCC 1

RESULT 558
ABK56195
ID   ABK56195 standard; RNA; 17 BP.
XX
AC   ABK56195;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human CLCA1 gene enzymatic nucleic acid #566.
XX
KW   Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW   antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW   chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW   oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW   acetylcysteine.
XX
OS   Homo sapiens.
XX
PN   WO200211674-A2.
XX
PD   14-FEB-2002.
XX
PF   09-AUG-2001; 2001WO-US24970.
XX
PR   09-AUG-2000; 2000US-224383P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (SYNT ) SYNTEX USA LLC.
PA   (THOM/) THOMPSON J.
XX
PI   Thompson J,  McSwiggen J,  McKenzie T,  Ayers D,  Szymkowski DE;
PI   Grupe A;
XX
DR   WPI; 2002-217145/27.
XX
PT   Enzymatic polynucleotide that down regulates expression of chloride
PT   channel calcium activated gene, useful for treating Chronic obstructive
PT   pulmonary disease (COPD), chronic bronchitis and asthma  -
XX
PS   Claim 4; Page 63; 152pp; English.
XX
CC   The invention relates to enzymatic nucleic acid molecules that down
CC   regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC   by cleaving RNA derived from the genes. The nucleic acid sequences are
CC   useful as pharmaceutical agents for treating conditions such as chronic
CC   obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC   fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC   that are related to or will respond to the levels of CLCA1 in a cell or
CC   tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC   hence, are useful for treatment of a patient having a condition
CC   associated with the level of CLCA1, where the invention further comprises
CC   the use of one or more therapies under conditions suitable for the
CC   treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC   antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC   nucleic acids of the invention are also used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of CLCA1 RNA in a cell. This sequence represents an
CC   enzymatic nucleic acid molecule of the invention.
XX
SQ   Sequence 17 BP; 6 A; 1 C; 1 G; 9 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   37.5%;  Pred. No. 4.3e+02;
  Matches    6;  Conservative    8;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1133 TTATAGTAAATTTATT 1148
              ::|:| :|||: :|::
Db          2 UUAUACUAAAUGUAUU 17

RESULT 559
ABK56693/c
ID   ABK56693 standard; RNA; 17 BP.
```

```
XX
AC   ABK56693;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human CLCA1 gene enzymatic nucleic acid #1064.
XX
KW   Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW   antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW   chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW   oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW   acetylcysteine.
XX
OS   Homo sapiens.
XX
PN   WO200211674-A2.
XX
PD   14-FEB-2002.
XX
PF   09-AUG-2001; 2001WO-US24970.
XX
PR   09-AUG-2000; 2000US-224383P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (SYNT ) SYNTEX USA LLC.
PA   (THOM/) THOMPSON J.
XX
PI   Thompson J,  McSwiggen J,  McKenzie T,  Ayers D,  Szymkowski DE;
PI   Grupe A;
XX
DR   WPI; 2002-217145/27.
XX
PT   Enzymatic polynucleotide that down regulates expression of chloride
PT   channel calcium activated gene, useful for treating Chronic obstructive
PT   pulmonary disease (COPD), chronic bronchitis and asthma  -
XX
PS   Claim 4; Page 78; 152pp; English.
XX
CC   The invention relates to enzymatic nucleic acid molecules that down
CC   regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC   by cleaving RNA derived from the genes. The nucleic acid sequences are
CC   useful as pharmaceutical agents for treating conditions such as chronic
CC   obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC   fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC   that are related to or will respond to the levels of CLCA1 in a cell or
CC   tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC   hence, are useful for treatment of a patient having a condition
CC   associated with the level of CLCA1, where the invention further comprises
CC   the use of one or more therapies under conditions suitable for the
CC   treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC   antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC   nucleic acids of the invention are also used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of CLCA1 RNA in a cell. This sequence represents an
CC   enzymatic nucleic acid molecule of the invention.
XX
SQ   Sequence 17 BP; 8 A; 4 C; 2 G; 3 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        722 TTAATTTCAGGAATTG 737
              ||||||||||| |||
Db         17 TTAATTTCAGGTCTTG 2


RESULT 560
ABK56852
ID   ABK56852 standard; RNA; 17 BP.
XX
AC   ABK56852;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human CLCA1 gene enzymatic nucleic acid #1223.
XX
KW   Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW   antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW   chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW   oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW   acetylcysteine.
XX
OS   Homo sapiens.
XX
PN   WO200211674-A2.
XX
PD   14-FEB-2002.
XX
PF   09-AUG-2001; 2001WO-US24970.
XX
PR   09-AUG-2000; 2000US-224383P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (SYNT ) SYNTEX USA LLC.
PA   (THOM/) THOMPSON J.
XX
PI   Thompson J,  McSwiggen J,  McKenzie T,  Ayers D,  Szymkowski DE;
PI   Grupe A;
XX
DR   WPI; 2002-217145/27.
XX
PT   Enzymatic polynucleotide that down regulates expression of chloride
PT   channel calcium activated gene, useful for treating Chronic obstructive
PT   pulmonary disease (COPD), chronic bronchitis and asthma  -
XX
PS   Claim 4; Page 84; 152pp; English.
XX
CC   The invention relates to enzymatic nucleic acid molecules that down
CC   regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC   by cleaving RNA derived from the genes. The nucleic acid sequences are
CC   useful as pharmaceutical agents for treating conditions such as chronic
CC   obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC   fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC   that are related to or will respond to the levels of CLCA1 in a cell or
CC   tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC   hence, are useful for treatment of a patient having a condition
CC   associated with the level of CLCA1, where the invention further comprises
CC   the use of one or more therapies under conditions suitable for the
CC   treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC   antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC   nucleic acids of the invention are also used as diagnostic tools to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of CLCA1 RNA in a cell. This sequence represents an
CC   enzymatic nucleic acid molecule of the invention.
XX
SQ   Sequence 17 BP; 8 A; 4 C; 2 G; 3 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   68.8%;  Pred. No. 4.3e+02;
  Matches   11;  Conservative    3;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1245 TTCAGATAAACAACAA 1260
              ::||| : ||||||||
Db          2 UUCAGCUGAACAACAA 17


RESULT 561
ABK56963/c
ID   ABK56963 standard; RNA; 17 BP.
XX
AC   ABK56963;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Human CLCA1 gene enzymatic nucleic acid #1334.
```

XX
KW Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW acetylcysteine.
XX
OS Homo sapiens.
XX
PN WO200211674-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US24970.
XX
PR 09-AUG-2000; 2000US-224383P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (SYNT) SYNTEX USA LLC.
PA (THOM/) THOMPSON J.
XX
PI Thompson J, McSwiggen J, McKenzie T, Ayers D, Szymkowski DE;
PI Grupe A;
XX
DR WPI; 2002-217145/27.
XX
PT Enzymatic polynucleotide that down regulates expression of chloride
PT channel calcium activated gene, useful for treating Chronic obstructive
PT pulmonary disease (COPD), chronic bronchitis and asthma -
XX
PS Claim 4; Page 87; 152pp; English.
XX
CC The invention relates to enzymatic nucleic acid molecules that down
CC regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC by cleaving RNA derived from the genes. The nucleic acid sequences are
CC useful as pharmaceutical agents for treating conditions such as chronic
CC obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC that are related to or will respond to the levels of CLCA1 in a cell or
CC tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC hence, are useful for treatment of a patient having a condition
CC associated with the level of CLCA1, where the invention further comprises
CC the use of one or more therapies under conditions suitable for the
CC treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC nucleic acids of the invention are also used as diagnostic tools to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of CLCA1 RNA in a cell. This sequence represents an
CC enzymatic nucleic acid molecule of the invention.
XX
SQ Sequence 17 BP; 8 A; 3 C; 2 G; 4 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 87.5%; Pred. No. 4.3e+02;
Matches 14; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 722 TTAATTTCAGGAATTG 737
||||||||||| |||
Db 16 TTAATTTCAGGTCTTG 1

RESULT 562
ABK57058
ID ABK57058 standard; RNA; 17 BP.
XX
AC ABK57058;
XX
DT 02-JUL-2002 (first entry)
XX
DE Human CLCA1 gene enzymatic nucleic acid #1429.
XX
KW Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic;
KW antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
KW chronic bronchitis; cystic fibrosis; obstructive bowel syndrome;
KW oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinetic;
KW acetylcysteine.
XX
OS Homo sapiens.
XX
PN WO200211674-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US24970.
XX
PR 09-AUG-2000; 2000US-224383P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
PA (SYNT) SYNTEX USA LLC.
PA (THOM/) THOMPSON J.
XX
PI Thompson J, McSwiggen J, McKenzie T, Ayers D, Szymkowski DE;
PI Grupe A;
XX
DR WPI; 2002-217145/27.
XX
PT Enzymatic polynucleotide that down regulates expression of chloride
PT channel calcium activated gene, useful for treating Chronic obstructive
PT pulmonary disease (COPD), chronic bronchitis and asthma -
XX
PS Claim 4; Page 90; 152pp; English.
XX
CC The invention relates to enzymatic nucleic acid molecules that down
CC regulate expression of chloride channel calcium activated 1 (CLCA1) genes
CC by cleaving RNA derived from the genes. The nucleic acid sequences are
CC useful as pharmaceutical agents for treating conditions such as chronic
CC obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic
CC fibrosis, obstructive bowel syndrome and any other diseases or conditions
CC that are related to or will respond to the levels of CLCA1 in a cell or
CC tissue. The sequences are useful for reducing CLCA1 activity in a cell,
CC hence, are useful for treatment of a patient having a condition
CC associated with the level of CLCA1, where the invention further comprises
CC the use of one or more therapies under conditions suitable for the
CC treatment, for example, oxygen therapy, bronchodilators, corticosteroids,
CC antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The
CC nucleic acids of the invention are also used as diagnostic tools to
CC examine genetic drift and mutations within diseased cells or to detect
CC the presence of CLCA1 RNA in a cell. This sequence represents an
CC enzymatic nucleic acid molecule of the invention.
XX
SQ Sequence 17 BP; 6 A; 1 C; 2 G; 8 U; 0 other;

Query Match 1.0%; Score 12.8; DB 1; Length 17;
Best Local Similarity 37.5%; Pred. No. 4.3e+02;
Matches 6; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

Qy 1136 TAGTAAATTTATTTTA 1151
:| :||: :|::::|
Db 1 UACUAAAUGUAUUUUA 16

RESULT 563
ABK18668/c
ID ABK18668 standard; RNA; 17 BP.
XX
AC ABK18668;
XX
DT 09-APR-2002 (first entry)
XX
DE Human ERG G-cleaver ribozyme target sequence Seq ID No 1315.
XX
KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;

```
KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW   amberzyme.
XX
OS   Homo sapiens.
XX
PN   WO200188124-A2.
XX
PD   22-NOV-2001.
XX
PF   16-MAY-2001; 2001WO-US15866.
XX
PR   16-MAY-2000; 2000US-0572021.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
XX
DR   WPI; 2002-082995/11.
XX
PT   Novel polynucleotide which down regulates expression of Ets-related
PT   gene, useful for treating cancer, diabetic retinopathy, macular
PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
PT   syndrome  -
XX
PS   Claim 4; Page 84; 149pp; English.
XX
CC   The invention relates to a nucleic acid molecule (I) which down regulates
CC   expression of an Ets-related gene (ERG). (I) is useful for treating
CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC   treating a patient having a condition associated with the level of ERG,
CC   by contacting cells of the patient with (I) under conditions suitable for
CC   the treatment. The method comprises the use of one or more therapies
CC   under conditions suitable for the treatment. Leukaemia or tumour
CC   angiogenesis is treated by administering (I) to the patient in
CC   conjunction with one or more of other therapies such as radiation or
CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC   diseases related to the expression of ERG, and as diagnostic tool to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of ERG RNA in a cell. (I) is useful for specifically
CC   targeting genes that share homology with ERG gene or ERG fusion genes.
CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
CC   related PCR primers of the invention.
XX
SQ   Sequence 17 BP; 7 A; 1 C; 2 G; 7 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1235 AAATTTTCATTTCAGA 1250
             ||||||||||||| | |
Db         16 AAATTTTCATTTGACA 1


RESULT 564
ABK18697/c
ID   ABK18697 standard; RNA; 17 BP.
XX
AC   ABK18697;
XX
DT   09-APR-2002  (first entry)
XX
DE   Human ERG G-cleaver ribozyme target sequence Seq ID No 1344.
XX
KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
KW   amberzyme.
XX
OS   Homo sapiens.
XX
PN   WO200188124-A2.
XX
PD   22-NOV-2001.
XX
PF   16-MAY-2001; 2001WO-US15866.
XX
PR   16-MAY-2000; 2000US-0572021.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
XX
DR   WPI; 2002-082995/11.
XX
PT   Novel polynucleotide which down regulates expression of Ets-related
PT   gene, useful for treating cancer, diabetic retinopathy, macular
PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
PT   syndrome  -
XX
PS   Claim 4; Page 85; 149pp; English.
XX
CC   The invention relates to a nucleic acid molecule (I) which down regulates
CC   expression of an Ets-related gene (ERG). (I) is useful for treating
CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
CC   treating a patient having a condition associated with the level of ERG,
CC   by contacting cells of the patient with (I) under conditions suitable for
CC   the treatment. The method comprises the use of one or more therapies
CC   under conditions suitable for the treatment. Leukaemia or tumour
CC   angiogenesis is treated by administering (I) to the patient in
CC   conjunction with one or more of other therapies such as radiation or
CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
CC   diseases related to the expression of ERG, and as diagnostic tool to
CC   examine genetic drift and mutations within diseased cells or to detect
CC   the presence of ERG RNA in a cell. (I) is useful for specifically
CC   targeting genes that share homology with ERG gene or ERG fusion genes.
CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
CC   related PCR primers of the invention.
XX
SQ   Sequence 17 BP; 9 A; 0 C; 3 G; 5 U; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1171 TTTTATTAGATAAATT 1186
             |||||||| ||| |||
Db         17 TTTTATTACATACATT 2
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RESULT 565
ABT34683/c
ID   ABT34683 standard; DNA; 17 BP.
XX
AC   ABT34683;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Tumour suppression related human fukutin oligo SEQ ID No 320.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; protein chip; gene therapy; tumour suppression;
KW   human fukutin; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003025175-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB04208.
XX
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-313353/30.
XX
PT   New isolated nucleic acid, useful for treating viral diseases
PT   associated with tumors and cell degeneration, also related
PT   polypeptides, antibodies and transfected cells  -
XX
PS   Disclosure; Page 71; 720pp; French.
XX
CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC   given in the specification, a sequence containing at least 15
CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC   sequence that hybridizes to them under highly stringent conditions, or
CC   the complement of any of them, or the corresponding RNA. The novel
CC   isolated nucleic acids of the invention are useful as probes and primers
CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC   and for production of recombinant polypeptides. Any of the nucleic acids,
CC   polypeptides, vectors containing the nucleic acids, cells containing the
CC   vector or antibodies directed against the polypeptides are useful for
CC   preparation of pharmaceuticals for prevention and/or treatment of viral
CC   diseases that are characterised by development of tumours or cell
CC   degeneration, specifically cancer but also Alzheimer's disease and
CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC   patient samples is useful for diagnosis and/or prognosis of these
CC   diseases. The polypeptides can also be used to generate antibodies, and
CC   both the polypeptide and antibodies are useful as components of protein
CC   chips. The nucleic acid sequences of the invention can be used in gene
CC   therapy. This polynucleotide sequence represents a tumour suppression
CC   related human fukutin oligonucleotide of the invention.
XX
SQ   Sequence 17 BP; 2 A; 2 C; 5 G; 8 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        438 AAACTTCAAGCAAATC 453
              ||||| |||||| |||
Db         16 AAACTCCAAGCAGATC 1

RESULT 566
ABT34698/c
ID   ABT34698 standard; DNA; 17 BP.
XX
AC   ABT34698;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Tumour suppression related human fukutin oligo SEQ ID No 335.
XX
KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
KW   schizophrenia; protein chip; gene therapy; tumour suppression;
KW   human fukutin; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003025175-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-IB04208.
XX
PR   17-SEP-2001; 2001FR-0011978.
XX
PA   (MOLE-) MOLECULAR ENGINES LAB.
XX
PI   Telerman A,  Amson R,  Tuijnder M;
XX
DR   WPI; 2003-313353/30.
XX
PT   New isolated nucleic acid, useful for treating viral diseases
PT   associated with tumors and cell degeneration, also related
PT   polypeptides, antibodies and transfected cells  -
XX
PS   Disclosure; Page 73; 720pp; French.
XX
CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
CC   given in the specification, a sequence containing at least 15
CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
CC   sequence that hybridizes to them under highly stringent conditions, or
CC   the complement of any of them, or the corresponding RNA. The novel
CC   isolated nucleic acids of the invention are useful as probes and primers
CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
CC   and for production of recombinant polypeptides. Any of the nucleic acids,
CC   polypeptides, vectors containing the nucleic acids, cells containing the
CC   vector or antibodies directed against the polypeptides are useful for
CC   preparation of pharmaceuticals for prevention and/or treatment of viral
CC   diseases that are characterised by development of tumours or cell
CC   degeneration, specifically cancer but also Alzheimer's disease and
CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
CC   patient samples is useful for diagnosis and/or prognosis of these
CC   diseases. The polypeptides can also be used to generate antibodies, and
CC   both the polypeptide and antibodies are useful as components of protein
CC   chips. The nucleic acid sequences of the invention can be used in gene
CC   therapy. This polynucleotide sequence represents a tumour suppression
CC   related human fukutin oligonucleotide of the invention.
XX
SQ   Sequence 17 BP; 5 A; 1 C; 3 G; 8 T; 0 other;

  Query Match             1.0%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 4.3e+02;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1462 TTATGTACAAATAGAT 1477
              | || ||||||||||||
Db         17 TAATCTACAAATAGAT 2

RESULT 567
ABT35053/c
ID   ABT35053 standard; DNA; 17 BP.
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